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THE

EVIDENCE AT LARGE,

AS LAID BEFORE THE

COMMITTEE OF THE HOUSE OF COMMONS,

RESPECTING

Dr. Jenner's

DISCOVERY

OF

VACCINE INOCULATION.

S. Gosnell, Printer,
Little Queen Street, Holborn.

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Dr. Jenner's

DISCOVERY

OF

VACCINE INOCULATION;

TOGETHER WITH THE

DEBATE WHICH FOLLOWED;

AND SOME

OBSERVATIONS

ON THE

CONTRAVENING EVIDENCE, &c.

BY THE REV. G. C. JENNER.

SALUS POPULI SUPREMA LEX.

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1805.

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PREFACE.

THE Public will probably be gratified in having the opportunity now afforded them of perusing the Evidence *in detail,* as delivered before the Committee of the House of Commons on Dr. Jenner's application to Parliament respecting his Discovery of Vaccine Inoculation. This would have appeared at an earlier period, had not unavoidable circumstances occurred to delay its publication.

Not to seem wholly deficient in the knowledge of a subject of so great importance, and to give additional weight and consequence to the observations that ensue, I beg leave to submit to the reader the result of my own practice in vaccination. From a long residence in Gloucestershire, I was

well acquainted with the fact, that the cow-pox, casually contracted from the animal, was a preservative against the small-pox; and with this conviction I did not hesitate to commence vaccination the earliest opportunity that presented itself, after my relative, Dr. Jenner, had perfected his experiments, and given their happy result to the world.

From the year 1799 to the present period I have vaccinated nearly 5000 persons, *without having witnessed any ill consequence arising from it.*

It will be needless for me to go into general detail; but feeling particularly interested in the welfare of my native village, Burbage, in the county of Wilts, I there first began my operations.

Upon inquiry, I found that not more than 300 of the inhabitants, consisting of upwards of 1000 in number, had had the small-pox; consequently, a wide field was open before me to exemplify the utility of vaccine inoculation: but the hope I entertained of exe-

cuting the plan I had formed, according to my wishes, was at first a little damped by the difficulty of convincing people of the efficacy of the practice, and of persuading them to adopt it. The fears of some, and the prejudices of others, held out for a considerable time against every argument. At length, however, previous to my leaving the village for a short time, I prevailed on twenty individuals to be vaccinated. Upon my return, some months after, I found that the small-pox had been casually introduced by a boy who caught the infection at Bristol, and communicated it to a numerous family of his relatives. Part of this family I had before vaccinated, and these, to the amount of four or five, performed the offices of nurses and attendants, and slept in the same room with the others labouring under the natural small-pox; they were not however in any degree affected by the contagious effluvia; while every one of those who had not been vaccinated caught the small-pox; and one of

them died. This circumstance, while it alarmed the rest of the villagers, gave them perfect confidence in the protective powers of the cow-pox, and they were now eager to be vaccinated. Accordingly, I procured some vaccine virus, and inoculated twenty more persons; and as soon as I was satisfied of a sufficient supply of newly-formed matter, I appointed a day for a general inoculation. The language of persuasion was no longer necessary—the confident rustics quickly flocked around me, begging with the most earnest solicitation the protection of the cow-pox. I had now a fair opportunity not only of following, but of shewing the necessity of a strict observance of the rule laid down by Dr. Jenner, in his "Instructions for the Practice of Vaccine Inoculation," namely, "NEVER TO TAKE MATTER AFTER THE EIGHTH OR NINTH DAY OF THE DISEASE, OR AFTER THE AREOLA ROUND THE PUSTULE WAS FULLY FORMED." With virus of the *eighth* day, I vaccinated *two hundred and*

thirty-eight persons, and had the satisfaction to observe the *complete effect* produced in every individual. With that of the *tenth* day I vaccinated *seventy* others, but in *one fifth* of the number its insertion had no effect. The rest however had the disease perfectly. With matter of the *fourteenth* day I inoculated *thirty* more, on *one half* of whom no effect was produced, except that occasioned by the mere puncture of the lancet. Some of the rest had the genuine pustule, while the remainder had an inefficacious or spurious pustule only. These last, after a lapse of a few days, were re-inoculated with perfect success. Whenever I met with any material irregularity in the appearance of the pustule, I noted the circumstance, and repeated the operation, and my efforts generally proved successful in producing the true disease. In a few constitutions, however, owing to some unknown peculiarity, the virus failed of exciting any specific action on the system, and no effect

beyond

beyond that of a local imperfect pustule was produced. Two of these anomalous cases were subsequently put to the test of variolous matter, but were found to be *equally* unsusceptible of its action. I was then ignorant that herpetic eruptions will often prevent the infection of both small-pox and cow-pox; a discovery which Dr. Jenner has since happily made and communicated to the Public in the Medical and Physical Journal for August 1804, and which is of infinite importance to the medical world—to this cause I have now little doubt but these anomalous cases were to be attributed.

The vaccination of the whole parish was at length completed; and not long after I had finished my work, my patients had a fresh proof of the security afforded them. Some itinerant gypsies contracted the small-pox in their travels, and sickened in the village. An unrestrained intercourse was kept up between these unfortunate wanderers and the numerous inhabitants, but

no ill consequence ensued. From that period to the present, I have persevered in the vaccine practice; and by a scrupulous attention to the maxims of Dr. Jenner, have had the happiness to find my labours crowned with undeviating success.

Notwithstanding therefore the cavils that have lately been renewed by certain ignorant or prejudiced individuals against the vaccine inoculation, I trust that the impartial and philanthropic will continue to feel an unshaken confidence in its merits; that they will recollect the severe scrutiny it underwent, and *the solemn sanction it received from the British Legislature; which has since been confirmed by the unanimous testimony of the whole civilized world* *; they will

* Amongst the other innumerable testimonies from every part of Europe, from Asia, Africa, and America, the following passages extracted from Mons. Chaptal's (Minister of the Interior) Address to the Prefects, concerning a plan for the extermination of the small-pox in France by means of vaccination, are very striking:

"The numerous experiments instituted in France during the

will then, I trust, feel it their duty to employ their utmost influence to check such futile, yet pernicious objections, and thereby afford the same prospect to this country, which others have already nearly realized, of completely exterminating that most fatal scourge of the human race—the small-pox.

the space of four years, prove, in the most incontestable manner, that the cow-pox is a security against the small-pox, by a process as certain in its effects, as it is mild and simple in its operation. Its success is established by more than a hundred thousand facts, *verified* by the Central Committee. During the four years that this committee have pursued, with no less zeal than impartiality, the progress of vaccination, not a single fact has occurred that could shake the public confidence. *It has been proved, that all which has been written to the contrary, has been the result of ignorance or of falsehood.*"—See Medical and Physical Journal for May 1805.

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REPORT

FROM THE

COMMITTEE

ON

DR. JENNER'S PETITION

RESPECTING HIS

DISCOVERY

OF

VACCINE INOCULATION.

REPORT,

&c.

The COMMITTEE, to whom the Petition of EDWARD JENNER, Doctor of Physic, was referred;

HAVE, pursuant to the order of the House, examined the matter thereof; which is divided into three distinct heads of inquiry:

The utility of the discovery itself, which is the foundation of the Petition;

The right of the Petitioner to claim the discovery;

The advantage, in point of medical practice, and pecuniary emolument, which he has derived from it.

Upon the first head a number of witnesses of the highest characters, and most extensive experience in the profession, were examined, whose

names, with the substance of their respective evidence (strongly confirmed by their general practice, as well as by that in their own families), appear in the Supplement; nor was it for want of the testimony of several other equally respectable physicians and surgeons, whom the Petitioner was desirous of producing, that many other names are not inserted; but because your Committee, after having received so considerable a body of evidence to the same purport, and with so little variation in opinion, thought that his case could sustain no injury in being left to rest upon the concurring depositions of those already examined, who had both the most ample experience of the facts, and the best means of forming a judgment upon them. The testimony also of some persons not professional has been admitted, who could speak to occurrences that tend to illustrate particular points connected with the subject. The result, as it appears to your Committee, which may be collected from the oral testimony of these gentlemen (with the exception of three of them), is, that the discovery of vaccine inoculation is of the most general utility, inasmuch as it introduces a milder disorder in the place of the inoculated small-pox, which is not capable of being communicated by contagion; that it does not excite other humours or disorders in the constitution; that it has not been known, in any one instance, to prove fatal; that the inoculation may be safely performed at all times of life

life (which is known not to be the case with regard to the inoculation of the small-pox), in the earliest infancy, as well as during pregnancy, and in old age; and that it tends to eradicate, and, if its use becomes universal, must absolutely extinguish one of the most destructive disorders by which the human race has been visited.

The written evidence which is inserted in the Supplement (for your Committee have judged it proper to make a selection from a great mass, of what appeared most important) is more various, but directed to the same objects: part of it relates to the very extensive and successful practice of this mode of inoculation in every quarter of the globe, the efficacy of which does not seem abated by the cold of the northern, nor by the heat of the southern and tropical climates: and though there are no means of examining the authors from whence some of these attestations come, it would be an act of injustice to the Petitioner to exclude such important documents, which show the consideration in which this discovery is held, and the benefit with which it has been attended in so many other countries, to at least as great an extent as in our own.

As a comparison between this new practice, and the inoculated small-pox, forms a principal consideration in the present inquiry, some facts with regard to the latter engaged the attention of your Committee, and in the Supplement are inserted

(see

(see page 147) statements of the mortality occasioned by the small-pox in forty-two years before inoculation was practised in England, and of the forty-two years from 1731 to 1772: the result of which appears to be an increase of deaths amounting to seventeen in every 1000: the general average giving seventy-two in every 1000 during the first forty-two years, and eighty-nine in the forty-two years ending with 1772; so as to make the whole excess of deaths in the latter period, 1742. The increase of mortality is stated by another witness (No. 10) to be as ninety-five to seventy-four, comparing the concluding thirty years, with the first thirty of the last century; and the average annual mortality from small-pox to have been latterly about 2000; for though individual lives are certainly preserved, and it is true that a smaller loss happens in equal numbers who undergo the small-pox now, than there was formerly; yet it must be admitted, that the general prevalence of inoculation tends to spread and multiply the disease itself; of which, though the violence be much abated by the present mode of treatment, the contagious quality remains in full force. It deserves also to be noticed, that the deaths under the inoculated sort of small-pox, with all the improvements of modern experience, are not inconsiderable; it is stated by one of the witnesses at about one in every 300 throughout England (Nos. 5 and 7); by another, as about one in every 100 in London

London (No. 15), while the loss in the natural small-pox is probably not less than one in six (No. 8); nor ought it to be overlooked, that mistakes have been known to arise in the inoculated small-pox, and instances are cited by some of the witnesses, in which persons supposed to have gone through the small-pox by inoculation, have caught it afterwards in the natural way (Nos. 28 and 39); the general laws of vaccine and variolous disease are extremely similar, and it is not surprising that they should resemble each other in their anomalies.

A spurious or imperfect sort of cow-pox having been mentioned in some of the examinations, your Committee have been particularly diligent in their inquiries into every individual case that came within their notice, where suspicions had arisen, or facts were alleged tending to bring into doubt the preventive power of vaccine inoculation; and although, for the reasons before given, they have restricted and abridged the proofs in favour of this practice, they have thought proper to withhold no part of the evidence that has been received relative to the cases that appear to controvert it; of which it will be observed that some (Nos. 6, 17, and 24) evidently resolve themselves into variolous infection, taken previously to the vaccine inoculation; others (Nos. 6 and 23) into the patient not having taken the cow-pox at all; others again (Nos. 10 and 48) from the vaccine matter being,

by

by want of attention in preserving it, decomposed, or mixed with variolous matter (Nos. 38 and 48), or from the fluid being taken at too late a period of the pustule; to which last cause it seems probable that most of the errors and dubious cases are to be referred (Nos. 10, 11, and 38). All the practitioners agree, that there is no difficulty in distinguishing the real disorder from every spurious or imperfect appearance; and that the regular progress of the pustule itself, if attended to, cannot be mistaken.

Some cases (Nos. 40 and 42, and p. 148 to 154) are not explained in a manner so satisfactory and indisputable as the foregoing: but in leaving them to have such weight as they may appear to deserve, your Committee cannot avoid recurring to the multitude of instances in which endeavours have been used to communicate the small-pox to patients who have been known to go through the regular vaccine disease, in which neither repeated inoculations nor exposure to the most malignant small-pox have been able to produce any effect (Nos. 5, 9, 14, 15, 19, 27, 32, 39, and p. 172).

Upon the second head, the whole of the oral depositions, as well as all the written documents from abroad, are uniform and decisive in favour of Dr. Jenner's claim to originality in the discovery: but as some pretensions have been advanced to a knowledge at least of this practice before Dr. Jenner's publications, it may be proper to notice shortly,

shortly, what the nature of those claims is, and in what manner they bear upon this part of the Petitioner's case. Such extracts as can be considered in any degree material, are contained in pages 155, 156, and 159. The disorder itself, and its specific property of securing against small-pox infection, was not a discovery of Dr. Jenner's, nor of any of those whose writings are referred to: for in various parts of England, in Gloucestershire and Devonshire particularly, there was an opinion of that sort current among the common people employed in dairies, which the observation of inoculators for the small-pox tended to confirm. It appears not improbable, that in some very rare instances this knowledge was carried one step farther, and that the cow-pox was communicated either by handling the teat, or by inoculation from the animal, for the purpose, and with the intention of securing against the danger of small-pox: but the practice of which Dr. Jenner asserts himself to be the original inventor *, is, the inoculation from one human being to another, and the mode of transfer-

* With the greatest deference to the opinion of the Committee as expressed in their Report, we humbly submit that Dr. Jenner's claims were not rested by him, on his being only the original inventor of the vaccine inoculation from one human subject to another; but they went much farther—until his communications were made to the world, the whole business was involved in perfect darkness and uncertainty; it was Dr. Jenner who threw the first light upon it, and exhibited it a perfect system; but of this the reader will judge for himself from a perusal of Dr. Jenner's own statement.—See p. 1 to 7.

ring, indefinitely, the vaccine matter without any diminution of its specific power, to which it does not appear that any person has ever alleged a title: and these papers and experiments, whatever accuracy of observation, and spirit of research, they may evince in their respective authors, and to whatever extent they may be supposed to go, as they were never given to the public, so neither is there any intimation that they were imparted to Dr. Jenner; nor is it contended that the world became acquainted with this discovery, by any other means than by the course of trials conducted by the Petitioner, and by his ample and unreserved communications.

Upon the last division of the subject, evidence has been received from persons who were acquainted with the medical practice, and former situation of Dr. Jenner (No. 23), which confirms the allegation contained in the Petition, that he has not only reaped no advantage from his discovery, but that he has been a considerable loser by the persevering attention which he has bestowed upon this one subject, to the neglect of his other business, and without an opportunity of replacing himself in the situation, which a desire of publishing and diffusing more extensively, and establishing beyond the reach of controversy the practice itself, induced him to quit. What his gains might probably have been, if he had been solicitous to keep the secret within his own practice, and that

of his immediate pupils, as far as medical men, in great practice themselves, can form a conjectural opinion, may be collected from the testimonies expressed in Nos. 7 and 30, in which no more than justice is done to the liberality and public spirit of the Petitioner, in pursuing the propagation and extension of this important discovery, and in rendering it rather of universal utility to the human race, than of emolument to himself.

REPORT,

REPORT,

&c.

COMMITTEE

ON DR. JENNER'S PETITION.

LUNÆ 22° DIE MARTII 1802.

ADMIRAL BERKELEY *in the Chair.*

THE Committee having met, Dr. Jenner was called upon for his evidence, which he delivered in the form of a printed paper, as follows: No. 1.

MY inquiry into the nature of the cow-pox commenced upwards of twenty-five years ago. My attention to this singular disease was first excited by observing, that among those whom in the country I was frequently called upon to inoculate, many resisted every effort to give them the small-pox. These patients I found had undergone a disease they called the cow-pox, contracted by milking cows affected with a peculiar eruption on their teats. On inquiry, it appeared that it had been known among the dairies time immemorial,

and that a vague opinion prevailed that it was a preventive of the small-pox. This opinion I found was, comparatively, new among them; for all the older farmers declared they had no such idea in their early days: a circumstance that seemed easily to be accounted for, from my knowing that the common people were very rarely inoculated for the small-pox, till that practice was rendered general by the improved method introduced by the Suttons: so that the working people in the dairies were seldom put to the test of the preventive powers of the cow-pox.

In the course of the investigation of this subject, which, like all others of a complex and intricate nature, presented many difficulties, I found that some of those *who seemed to have undergone the cow-pox*, nevertheless, on inoculation with the small-pox, felt its influence just the same as if no disease had been communicated to them by the cow. This occurrence led me to make inquiry among the practitioners in the country around me, few of whom were unacquainted with the disease, but all agreed in this sentiment, that the cow-pox was not to be relied upon as a certain preventive of the small-pox. This for a while damped, but did not extinguish, my ardour; for as I proceeded, I had the satisfaction to learn that the cow was subject to some varieties of spontaneous eruptions upon her teats; that they were all capable of communicating sores to the hands of the milkers;

and

and that whatever sore was derived from the animal, was called in the dairy the cow-pox. Thus I surmounted a great obstacle, and in consequence was led to form a distinction between these diseases, one of which only I have denominated the *true*, the other the *spurious*, cow-pox; the latter not possessing any specific power over the constitution. This impediment to my progress was not long removed, before another, of far greater magnitude in its appearance, started up. There were not wanting instances to prove, that when the true cow-pox broke out among the cattle at a dairy, a person who had milked an infected animal, and had thereby apparently gone through the disease in common with others, was liable to receive the small-pox afterwards. This, like the former obstacle, gave a painful check to my fond and aspiring hopes: but reflecting that the operations of Nature are generally uniform, and that it was not probable the human constitution, having undergone the cow-pox, should in some instances be perfectly shielded from the small-pox, and in many others remain unprotected, I resumed my labours with redoubled ardour. The result was fortunate; for I now discovered that the virus of cow-pox was liable to undergo progressive changes from the same causes precisely as that of small-pox; and that when it was applied to the human skin in its degenerated state, it would produce the ulcerative effects in as great a degree as when it

was not decomposed, and sometimes far greater; but having lost *its specific properties*, it was incapable of producing that change upon the human frame which is requisite to render it unsusceptible of the variolous contagion; so that it became evident a person might milk a cow one day, and, having caught the disease, be for ever secure; while another person, milking the same cow the next day, might feel the influence of the virus in such a way as to produce a sore or sores, and in consequence of this might experience an indisposition to a considerable extent; yet, as has been observed, the specific quality being lost, the constitution would receive no peculiar impression.

Here the close analogy between the virus of small-pox and of cow-pox becomes remarkably conspicuous; since the former, when taken from a recent pustule and immediately used, gives the perfect small-pox to the person on whom it is inoculated; but when taken in a far advanced stage of the disease, or when (although taken early) previously to its insertion, it be exposed to such agents as, according to the established laws of Nature, cause its decomposition, it can no longer be relied on as effectual. This observation will fully explain the source of those errors which have been committed by many inoculators of the cow-pox. Conceiving the whole process to be so extremely simple as not to admit of a mistake, they have been heedless about the state of the vaccine virus;

and

finding it limpid, as part of it will be, even in an advanced stage of the pustule, when the greater portion has been converted into a scab, they have felt an improper confidence, and sometimes mistaken a spurious pustule, which the vaccine fluid in this state is capable of exciting, for that which possesses the perfect character.

During the investigation of the casual cow-pox, I was struck with the idea that it might be practicable to propagate the disease by INOCULATION, *after the manner of the small-pox, first from the cow, and finally from one human being to another.* I anxiously waited some time for an opportunity of putting this theory to the test. At length the period arrived. The first experiment was made upon a lad of the name of Phipps, in the spring of the year 1796, in whose arm a little vaccine virus was inserted, taken from the hand of a young woman who had been accidentally infected by a cow. Notwithstanding the resemblance which the pustule, thus excited on the boy's arm, bore to variolous inoculation, yet as the indisposition attending it was barely perceptible, I could scarcely persuade myself the patient was secure from the small-pox. However, on his being inoculated some months afterwards, it proved that he was secure *. This case inspired me with confidence;

* This boy was again inoculated nearly five years afterwards with variolous matter, but no other effect was produced beyond a local inflammation around the punctured part upon the arm.

and as soon as I could again furnish myself with virus from the cow, I made an arrangement for a series of inoculations. A number of children were inoculated in succession, one from the other; and after several months had elapsed, they were exposed to the infection of the small-pox; some by inoculation, others by variolous effluvia, and some in both ways; but they all resisted it. The result of these trials gradually led me into a wider field of experiment, which I went over not only with great attention, but with painful solicitude. This became universally known through a Treatise published in June 1798. The result of my further experience was also brought forward in subsequent publications in the two succeeding years, 1799 and 1800. The distrust and scepticism which naturally arose in the minds of medical men, on my first announcing so unexpected a discovery, has now nearly disappeared. Many hundreds of them, from actual experience, have given their attestations that the inoculated cow-pox proves a perfect security against the small-pox; and I shall probably be within compass if I say, thousands are ready to follow their example; for the scope that this inoculation has now taken is immense. An hundred thousand persons, upon the smallest computation, have been inoculated in these realms. The numbers who have partaken of its benefits throughout Europe and other parts of the globe are incalculable: and it now becomes too manifest

to

to admit of controversy, that the annihilation of the small-pox, the most dreadful scourge of the human species, must be the final result of this practice.

Dr. Ash, *Fellow of the Royal College of Physicians,* No. 2.
called in and examined.

Q. Was you appointed one of the Radcliffe travelling physicians?

A. I was; and in consequence of that appointment resided abroad five years.

Q. During that residence did you hear of the vaccine inoculation?

A. I quitted the continent in the year 1796; but as, since that time, I have been in correspondence with medical men in different parts of Europe, I should not have been ignorant of any medical discovery which might have been made on the continent. To the best of my knowledge, the vaccine inoculation was totally unknown on the continent till after the publication of Dr. Jenner's works. I believe the first inoculation from the cow-pox was in Germany, in the beginning of the year 1800, with matter received from England. The practice was propagated over the north of Germany, and soon after throughout the whole country. The cow-pox inoculation has now been received in most parts of Europe, and has been considered as a system exclusively introduced by

Dr. Jenner. The practice itself is distinguished in many parts by the name of the author, and called the Jennerean inoculation.

Q. What is the general opinion of its merits on the continent?

A. Public opinions have been delivered by the physicians of Paris, of Germany, of Brussels, of Geneva, and many other parts of Europe; and such opinions seem to be highly favourable to the practice of the vaccine inoculation in every respect.

Q. Since your return have you seen it put in practice in England?

A. As I considered it a discovery of the highest importance, I have endeavoured to gain as much information on the subject as it was in my power to obtain. I have seen many patients inoculated with the cow-pox, and have had three children of my own inoculated with it.

Q. What is your opinion on the subject of the cow-pox?

A. My own opinion is highly favourable to it, as I think the body of evidence is sufficient to prove that inoculated cow-pox is a much milder disease than the inoculated small-pox, and has possibly never yet been found to be fatal in any one instance. Besides the other advantages it possesses over the inoculated small-pox, it is not capable of being communicated by contagion. That it is an effectual and permanent security to the constitution against the small-pox, the body

of

of evidence which has been brought before the public appears to me fully competent to establish.

Q. Do you think there has been sufficient experience of this discovery to pronounce that persons who have been inoculated with the vaccine matter, will continue during life incapable of receiving the small-pox infection?

A. I am of opinion, that when we combine the cases that have been published, in which the casual cow-pox has protected the constitution from the infection of the small-pox for more than fifty years, with the immense body of experiments which have been made since the introduction of the cow-pox inoculation, there seems to be hardly room for any rational doubt on the subject; nor is a temporary effect upon the constitution agreeable to any analogy suggested by diseases of a similar kind.

Q. Do you know whether the inoculation of the vaccine matter will supersede the small-pox in the natural way?

A. As far as my knowledge goes I believe it will not. I believe from the facts with which we are acquainted, that until the cow-pox has completed its course, it will not secure the constitution against the infection of the small-pox.

Q. Do you know any cases in which this inoculation is supposed to have stirred other humours in the constitution which did not appear before?

A. From the general evidence of facts it would

appear that the cow-pox has less tendency to produce that effect than the inoculated small-pox, which has sometimes been known to leave behind it a disposition to scrofula and other complaints. As far as my own experience goes the vaccine inoculation leaves none.—*Withdrew.*

No. 3. *Dr.* BRADLEY, *Fellow of the Royal College of Physicians, called in and examined.*

Q. Are you in the habit of receiving communications from the faculty on the continent, and in this kingdom?

A. Constantly.

Q. What is their opinion of the vaccine inoculation?

A. I have received accounts from Cambridge near New York, and Philadelphia in America, and Germany, in all which the experience of the English practitioners is entirely confirmed; and I have strong grounds to believe it is also introduced into Turkey, as will appear from the following extracts:

[*Books delivered in.*]

Q. Whom do you look upon as the original discoverer of this mode of treatment?

A. Certainly Dr. Jenner; and I believe no medical man in the world doubts it, and that in my extensive correspondence no person has put in a claim to priority.—*Withdrew.*

Mr.

Mr. HOME, *Surgeon, called in and examined.* No. 4

Q. At what period were you first made acquainted with the vaccine inoculation?

A. In some part of the year 1788 Dr. Jenner presented to Mr. Hunter a drawing of a finger, on which there was a pustule formed by the vaccine matter, and at that time Dr. Jenner proposed to Mr. Hunter the vaccine inoculation as a mode of preventing the small-pox; which drawing Mr. Hunter at the time shewed to me, mentioning Dr. Jenner's proposition. At that time Mr. Hunter's opinion was, that Dr. Jenner should prosecute the inquiry, as it was too new for him to form an opinion upon. My own opinion is best stated by saying, I have inoculated one of my own children with it, and am satisfied with its being perfectly secure. When I have been called upon to inoculate children of delicate constitutions for the small-pox I have objected to it, and used my influence in favour of the vaccine inoculation, in which I have always succeeded, considering that in such children the risk of the small-pox was too great to be hazarded.

Q. Can the vaccine inoculation excite or create a predisposition to any other disease?

A. In my judgment I can form no idea how it should, as it disturbs the constitution less than almost any other disease. The great advantage of the vaccine inoculation over that of the small-pox

is,

is, that the constitution is less liable to be impaired by it, and therefore less liable to fall into any subsequent diseases.—*Withdrew.*

No. 5. *Sir* WALTER FARQUHAR *called in and examined.*

Q. Did you ever hear of the vaccine inoculation previously to its introduction by Dr. Jenner?

A. Never.

Q. Have you ever seen any cases which prove that a person who has undergone this mode of treatment is rendered unsusceptible of the small-pox?

A. I certainly have, and in my own family particularly. I had two grandchildren that had not had the small-pox; the eldest was inoculated in the usual manner, the youngest was sent out of the house to an aunt's, and was inoculated with the vaccine matter. The eldest had the disease with every favourable appearance at first, but at last very violently, with a considerable eruption, and accompanied with convulsive fits. The youngest went through the vaccine inoculation in the easiest manner possible, and upon the twelfth day from the inoculation was brought home, and lived with his brother with the small-pox eruption then out, without any symptom of catching any complaint.

Q. Which is, in your opinion, the most likely to

to excite latent diseases in the human frame—the vaccine or the small-pox inoculation?

A. The small-pox inoculation without a doubt.

Q. Do you conceive that any very great advantage will be derived from this discovery of Dr. Jenner's?

A. I think it the greatest discovery that has been made for many years.

Q. Do you think that Dr. Jenner, by making this discovery public, suffered his own private advantage to give way to the public benefit?

A. I certainly do; and beg leave to relate what passed between Mr. Cline and myself on the subject. When it was first communicated to me by Mr. Cline, I entertained doubts respecting it, and said, if Dr. Jenner is confident of its success, and would come to town and reside in Grosvenor Square, I would insure him 10,000*l.* a year; but if he allowed the secret to be divulged, every practitioner would get hold of it, as it was so easily done, and he would lose all chance of emolument. Dr. Jenner's answer was, that *he would prosecute the discovery to perfection before he would quit his present situation*; by which I am of opinion he has actually lost the opportunity of making his fortune.

Q. Do you think that the vaccine inoculation is a permanent security against variolous infection?

A. Hitherto, as far as I have seen, it has been so: time only can decide it.

Q. Have

Q. Have you ever seen any instance in which it has proved fatal?

A. I never did.

Q. Of the number inoculated with the small-pox, and treated in the best manner, how many usually die?

A. The greatest computation is one in three hundred; but I do not speak to this of my own knowledge.

Q. Do you know any instance in which this inoculation is supposed to have stirred other humours in children?

A. I have not met with any.

Q. Can the same be affirmed of the ordinary small-pox inoculation?

A. Certainly not.

Q. Do you know of any instance of children inoculated in this mode who have not taken the infection?

A. I have seen it twice; but upon being inoculated again they have had the vaccine disease.

Q. Do you know any instance of a spurious sort of cow-pox being introduced instead of the genuine?

A. I do not.

Q. Does the vaccine inoculation supersede the small-pox in the natural way, in the same manner as the small-pox by inoculation is known to do?

A. I believe so.

Q. Do you consider your child which was inoculated

oculated with the vaccine disease as perfectly secure?

A. I certainly do.

Q. Do you think that the small-pox has been more fatal since the discovery of the small-pox inoculation?

A. I cannot say from my own knowledge; but those gentlemen who have made it the subject of most minute examination have declared that it is.—*Withdrew.*

Mr. CLINE, *Surgeon, called in and examined.* No. 6.

Q. At what period were you first made acquainted with the discovery of the vaccine inoculation?

A. In July 1798 I received some cow-pox matter from Dr. Jenner, with which I inoculated a boy of five years old, who had not had the small-pox. When he had gone through the vaccine disease in its usual mild manner, I inoculated the same boy with small-pox matter, and was not able to produce the disease. This experiment, together with what I had learnt from Dr. Jenner, produced a strong conviction in my mind of the great utility of this practice; I therefore recommended it strongly to all the practitioners of my acquaintance, among whom was Sir W. Farquhar; and on this representation to him, he said that if Dr. Jenner would come to London, and practise the vaccine

inoculation,

inoculation, he had no doubt of his making a large fortune. In consequence of this, I wrote to Dr. Jenner on the subject, but he declined coming to town at that time, not conceiving he had sufficiently established the practice entirely to devote himself to it in the manner proposed.

Q. What is your opinion as to the merits of this discovery?

A. My opinion is, that it is the greatest discovery ever made in the practice of physic for the preservation of human life; as the small-pox has been more destructive than any other disease.

Q. Have you not heard of some case or cases in which it was supposed the vaccine inoculation had failed in the prevention of the small-pox, I mean particularly in the case of Mr. Austin's child?

A. I saw a child of Mr. Austin's at his house at Clapton, who then had the small-pox, and the family informed me that the child had been inoculated with the cow-pox matter some months before, and that it had had the vaccine disease. This excited my curiosity to inquire accurately respecting the former inoculation. Neither Mr. nor Mrs. Austin could give me any distinct account respecting the appearances in the arm after the inoculation of the cow-pox matter; but on inquiry of the nursery-maid who had had the care of the child, she informed me that the inflammation produced by the inoculation in the arm, *had entirely subsided in five days*; from which circumstance

stance I was certain the child had not had the vaccine disease. They informed me, that Mr. Taylor, a surgeon, at Wootton-under-Edge, had performed the operation, but had not observed the effect of his inoculation, as the child was sent to Clapton in the neighbourhood of London.

[*Letter from Mr. Taylor delivered in and read.*]

Q. Do you know any instance in which a spurious sort of cow-pox has been inoculated?

A. I do not.

Q. Do you know any instance where this mode has beeen supposed to stir other humours in children?

A. Not one.

Q. Can the same be affirmed of the ordinary small-pox by inoculation?

A. Persons who have had the small-pox by inoculation are frequently afflicted with severe disorders, which I have no doubt have been principally excited by the small-pox.

Q. Does the vaccine inoculation supersede the small-pox in the natural way, in the same manner as the small-pox by inoculation is known to do?

A. When a person has been exposed to the infection of small-pox, and is inoculated with cow-pox matter within a few days after, I believe it will not prevent his having the small-pox; but at the same time I have to observe, that in cases where this appears to me to have happened, they had the small-pox in a milder manner than they

probably would if they had not been inoculated with the vaccine disease; and in no such case has any one patient died in St. Thomas's Hospital under my inspection.

Q. Do you think there has been sufficient time and experience to pronounce decisively, that a person inoculated in this mode will remain incapable of receiving the small-pox during life?

A. I believe they are perfectly incapable of ever receiving the small-pox.

Q. Does the vaccine disease ever create any blemish or mark on the human frame?

A. Never, except a scar upon the part inoculated.

Q. Do you conceive the vaccine disease to be contagious?

A. I do not.

Q. Do you not conceive that the small-pox is a great cause of scrofula?

A. It frequently does excite that disease.

Q. Have you ever known the same disorder excited by the vaccine inoculation?

A. Not in any case within my knowledge.—*Withdrew.*

MARTIS 23° DIE MARTII 1802.

ADMIRAL BERKELEY *in the Chair.*

Dr. BRADLEY *again called in and examined.* No. 7.

Q. Will the Jennerean system of inoculation prove a preservative against the small-pox for any period of time?

A. I have no doubt that it will to the extent of human life, for the *natural* cow-pox has already been proved to do so.

Q. Does the vaccine inoculation excite any other disease?

A. Not to my knowledge, or that of any of my correspondents.

Q. When a person has taken the contagion of the small-pox, will the inoculation with vaccine matter prevent or mitigate the small-pox as effectually as if inoculated with the small-pox matter?

A. I cannot doubt that fact, and believe there are decisive experiments in favour of it.

Q. Have you heard of any instance where the small-pox has followed the true cow-pox?

A. Not one.

Q. Can the spurious vaccine be distinguished from the true?

A. Certainly; and the coloured plate [*Plate produced*] which Dr. Jenner has produced may be employed as a compass that will direct any practitioner with certainty.

 Q. What

Q. What emolument might Dr. Jenner have reasonably expected if he had settled in town, and kept this secret to himself?

A. Ten thousand pounds a year by this time, and 20,000*l.* within five years hence.

Q. Might it not have got into other hands before that time?

A. Not to any extent in less than ten years; for notwithstanding the assiduous labours of Dr. Jenner and others to instruct practitioners, they now are constantly committing important errors. In France and America similar errors were committed. I therefore conclude, that without Dr. Jenner's instruction similar ones would have been perpetuated.

Q. Does the matter or contagion of small-pox ever *excite* any other disease?

A. Never any other disease than small-pox.

Q. Does the small-pox as a disease, both natural and inoculated, ever excite, or create, a *predisposition* to any, and what diseases?

A. To scrofula, consumption, and several surgical diseases depending thereon; whereas such predisposition has never been known to be created by the vaccine disease.

Q. How many persons do you believe to have been inoculated with the cow-pox?

A. Not less than 2,000,000 in the whole world, according to an estimate I have made from my own observation, and the information I have received from correspondents.

Q. Of

Q. Of that number do you know of no instance of a patient dying, during or in consequence of the inoculation?

A. Not one.

Q. Did you never hear of any such death from any of your correspondents?

A. Of four—one at the Small-pox Hospital, of which Dr. Woodville can speak; a child of the apothecary at Bedlam Hospital, of which Mr. Ring can speak; a child at Clapham; and a fourth which I received information of yesterday, the son of Mr. Anthony Robinson, of Great Charlotte Street, Blackfriars Road, of which Dr. Woodville will also speak *.

Q. Do you believe that the death of *any one* of the four above-mentioned persons is to be attributed to the vaccine inoculation?

A. Not of one; and as the disease continues about ten days, it is obvious that of 2,000,000 persons many more than four would die in that period.

Q. Of the number inoculated with the small-pox, and treated in the best manner, how many usually die?

A. When treated in the best manner, as at the Small-pox Hospital, I believe one in about 300; but Dr. Woodville can answer that precisely; on an average of the whole world I believe one in every 150.—*Withdrew.*

* See page 26.

No. 8. *Dr.* Sims, *President of the London Medical Society, called in and examined.*

Q. From your situation I presume you have an extensive foreign correspondence; did you ever hear of the vaccine inoculation before the communications made on that subject by Dr. Jenner?

A. Never.

Q. Whom do you look upon as its discoverer?

A. Dr. Jenner.

Q. What is your opinion of it generally as a discovery?

A. That it is the greatest and most useful discovery ever made in medicine.

Q. Among your various correspondents has any other person ever claimed, or mentioned any other person as the author of, this discovery?

A. No.

Q. Do you imagine that if Dr. Jenner had not made this discovery public, he would have reaped any greater emolument from it than he at present does?

A. Had he been able to keep it a secret (which I see no reason but he might have done during his life), and were his life protracted but to a moderate period, *I think he might have died the richest man in these dominions.*

Q. Is there any computation by which the mortality occasioned by the small-pox can be ascertained?

A. There

A. There is. Dr. Irwin and others in the beginning of the last century made a most careful computation of the average number of those who died in consequence of being seized with the natural small-pox. This number was greater than the proportion of one in six.

[*As to the absolute number, paper delivered in, containing the remainder of the answer.*]

Q. How long have you been president to this society?

A. Upwards of sixteen years.

Q. In the discussion of this discovery among so numerous a society, are there any, and how many, dissentient voices?

A. I never heard of one.

Q. Had you that confidence in vaccine inoculation at its first commencement in the metropolis which you have now?

A. My confidence has been increasing every hour in it; but at first I had not that confidence till repeated trials and authorities gave it me.

Q. Have you ever known it to introduce or excite bad humours or diseases in the constitution?

A. No constitutional complaint.

Q. Can the same be affirmed of the small-pox?

A. I believe not.

Q. Is the spurious pustule of the vaccine easily distinguished from the genuine?

A. It is.—*Withdrew.*

No. 9. *Dr.* WOODVILLE, *Physician of the Small-pox Hospital, called in and examined.*

Q. Are you conversant with the practice of vaccine inoculation?

A. Yes; ever since the beginning of the year 1799.

Q. Whom do you look upon as the discoverer thereof?

A. I consider certainly Dr. Jenner: for although since his publication it has appeared that it had been obscurely practised, the world would never have been acquainted with it but for Dr. Jenner.

Q. Have you introduced this practice into either of the hospitals of which you are physician?

A. Yes; into the Inoculation Hospital.

Q. Did you introduce this practice in consequence of Dr. Jenner's communications, or any other person's?

A. Certainly from the information of Dr. Jenner.

Q. Do you give the preference to the vaccine inoculation over the variolous?

A. Constantly.

Q. What are your motives for doing so?

A. Because, in the first place, I find it equally certain in securing the patient in future against the small-pox, as if the person were inoculated with small-pox itself: and in the next place I attain this without danger or risk to the life of the patient,

tient, as he is put to little or no inconvenience during the whole process of the inoculation.

Q. Is the cow-pox, like the small-pox, a contagious disorder?

A. Certainly not.

Q. Did you ever hear of any patient dying from the inoculation with the vaccine matter?

A. One hospital patient died while under inoculation of the cow-pox; but this was owing, in my opinion, to that patient having taken the small-pox in the common way; and his death ought to be attributed to the *small-pox*, the patient having a considerable number of small-pox pustules on him when he died.

Q. Whether pustules like the small-pox appear on the body in consequence of the vaccine inoculation?

A. I believe they never do over the whole body; I have seen in some instances a few pustules in the neighbourhood of the inoculated part, but these instances are very rare, one in five hundred.

Q. Did the hospital patient appear to have taken the cow-pox in the usual manner?

A. The inoculated part was not so well characterized as in the regular cases; it proceeded more slowly, and had more the appearance of the variolous than the vaccine inoculation.

Q. Whether during the course of the operation did you think the child had taken the cow-pox?

A. I thought at the time of the operation it *had*

taken

taken the cow-pox, but am *now convinced that I was mistaken, and that it was the small-pox.*

Q. On what day from the day of inoculation did the child die?

A. I believe on the eleventh day.

Q. On what day after the child's coming into the hospital was he inoculated?

A. The child was not resident in the hospital; but he could not have caught the small-pox at the hospital before he was inoculated with the vaccine.

Q. Dr. Bradley having mentioned the case of a child of a Mr. Anthony Robinson, state to the Committee what you know about it.

A. On the eighth day of the disease of the child I was desired to see it. I found that the vaccine inoculation was going on in a very regular manner; but the child had a severe complaint in its bowels, attended with much pain and fever, and a constant diarrhœa upon it: this complaint continued with little or no interruption for three days, when the child died. It did not appear to me that the child suffered any fever or constitutional infection arising from the vaccine disease; and I consider the death of this child to be wholly independent of the vaccine inoculation, and this opinion I gave to the father at the time.

Q. Do you believe that children, living constantly in a variolous atmosphere, are differently affected, with respect to the rapidity of progress,

from

from children residing at home in the country, and therefore that the preventive or mitigating effects of vaccine inoculation cannot be correctly appreciated in the Inoculation Hospital?

A. I think that if patients under vaccine inoculation are exposed to variolous infection (which should not take place till after the effects of vaccine inoculation are accurately ascertained by the usual symptoms on the inoculated part of the arm), they would frequently be liable to variolous-like eruption, and should not be considered as fair examples of the effects of vaccine inoculation.

Q. Is it necessary frequently to recur to the cow for original matter; or does the vaccine matter, after passing through a number of human bodies, retain its pristine mildness and efficacy?

A. I believe it retains its efficacy for any length of time while carried from one human subject to another; and I am now using matter which has passed through many hundred subjects, having been taken from the cow three years since.

Q. Have you ever inoculated with small-pox matter after the patient had taken the cow-pox, in order to try its efficacy—and what was the event?

A. The number that has been inoculated with the vaccine disease in the hospital, amounted on the first of January last to 7,500; about one half of which was since inoculated with small-pox matter,

ter, *in none of whom did the small-pox produce any effect.*

Q. Do you conceive Dr. Jenner to have made communications on this subject which have been the means of its being adopted in this kingdom and other parts of Europe; or was it any other person, or by any other means?

A. The whole entirely originated with Dr. Jenner.—*Withdrew.* Adjourned.

MERCURII 24° DIE MARTII 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 10. *Dr.* BLANE, *F. R. S. and one of the Commissioners of Sick and Wounded Seamen, called in and examined.*

Q. When were you made first acquainted with the vaccine inoculation? have you ever practised it? and what is your opinion of its effects?

A. I first heard of it about ten years ago. I have practised it both in my own family and among some of my friends. My opinion is in favour of every thing that has been ascribed to it. I first heard of it about ten years ago from Lord Berkeley; but I neither then, nor for a long time subsequent

sequent to that information, could give credit to what seemed to me so extraordinary and romantic; but I did not desist in making the most minute inquiries, as I was strongly interested in the truth of it, several of my own children having been dangerously ill from the old inoculation. Among other inquiries I went to the Small-pox Hospital, where it was then practised, and after the most minute investigation, I came away more prejudiced than ever against it, and inoculated one of my own children with the small-pox. Soon afterwards I found that the opinion I had taken up at the Small-pox Hospital, was owing to the vaccine having mixed itself with the variolous infection. This led me to renew my inquiries, which ended in a perfect conviction of the truth of all that had been alleged by Dr. Jenner; and having been very sceptical respecting it, I did not allow myself to be convinced but by the most rigorous and critical scrutiny of the facts, according to the best evidence I could procure for and against it, both in England and foreign parts. The principal argument which carried conviction to my mind has been the actual progress of this practice; for if it had not been found an effectual security against the small-pox, it would have stopped *in limine*; and from the immense numbers who have already undergone it, a great many would daily be catching the casual small-pox if they were susceptible of it, which would at this hour furnish unanswer-

able arguments against it. In consequence of this persuasion I inoculated another of my own children, eleven months old, with the vaccine matter, with perfect success; for the child was never ill, and has since resisted the variolous inoculation, which was performed seventeen months after the other.

Q. Whom do you look upon to have the merit of this discovery?

A. I think it entirely due to Dr. Jenner. I believe no one will affirm that this practice would exist, either now or in any assignable time hereafter, without his exertions in bringing the facts into light, and establishing them by actual experiment. It was formerly looked upon as an established truth in the schools of physic, that no disease could pass from the brute to the human subject except the hydrophobia. I have not found, either in my own reading or from conversing with others, that there is the least mention made of this new inoculation, or of the facts upon which it is founded, till they were made known and introduced by Dr. Jenner. There were, indeed, some dark, popular traditions in some remote parts of the country concerning it; but it is Dr. Jenner who, by his publications and practical researches, has rendered it available to society; and he is indisputably the first who actually inoculated with this infection, and published the result of his experience.

Q. Have you in your public situation, as one of

of the most distinguished characters at the Medical Board, learnt any particulars relative to its effects on the fleet or troops embarked?

A. In consequence of the great obstructions to duty in the naval service from the small-pox, by which ships are occasionally detained in port, or obliged to quit their station and come into port, and from numbers of men being occasionally disabled from duty by this severe disease, the Board of which I am a member, recommended to the Admiralty to sanction the vaccine inoculation upon such men as would consent to it. The Admiralty was pleased to assent to this proposal. The reports in consequence of this have all been favourable to it: in the Kent man of war, in which one of the first trials was made, eight men who never had had the small-pox were inoculated with vaccine matter, all of whom were afterwards inoculated with small-pox matter, which they resisted. Among other particulars reported by the surgeons, they remarked that it did not incapacitate the men from their duty. As a proof of the estimation in which this practice was held by the surgeons of the fleet, it may be mentioned, that they had a meeting at Plymouth, at which they subscribed for a medal, which was presented to Dr. Jenner as a benefactor to the service. Besides these testimonials, I have others * also from Egypt, transmitted through the

* See letters from Lord Keith, &c. Appendix.

Admiralty

Admiralty to the Board to which I belong. These I beg to lay on the table.

Q. What advantages do you think may accrue to mankind in general from the difference of this discovery and the usual mode of inoculation?

A. In order to explain myself to the Committee it will be necessary to convey to them my idea of the extent of the affliction and of the loss which society sustains from the small-pox; and the degree of alleviation which has been afforded by the old inoculation. According to the London bills of mortality for the last thirty years of the late century, on an average, ninety-five persons died by the small-pox out of each thousand reported in the bills. By a similar calculation, there died in the first thirty years of the late century, seventy only in each thousand. This calculation was made by Dr. Heberden, without any view to this question; and it appears from it, that the mortality from the small-pox is now at an average nearly one tenth of the total mortality, and that the mortality of the small-pox has increased since the introduction of inoculation. This probably holds true to a still greater degree in the country; for before the introduction of inoculation, there were certain districts in which the small-pox was unknown for twenty, thirty, and forty years; so that great numbers lived and died without ever having had the small-pox. This is no longer the case since the general dissemination of the small-pox from inoculation.

culation. I shall now state the absolute number of those who die annually in the bills of mortality of the small-pox. The average is about 2000; but the bills of mortality are far from comprehending the whole of this metropolis; there is one parish alone, namely, Mary-le-bone, which by the late parliamentary returns * is found to contain 63,000 inhabitants, and which is not included in these bills. Allowing, therefore, that one seventh of the deaths is not included in the bills, which is certainly within the truth, when it is considered that the deaths of Dissenters, Jews, &c. are not entered in the bills, and reckoning the metropolis one tenth part of the population of England and Wales; I calculate the whole annual deaths from small-pox in England and Wales to be 22,840; and reckoning Scotland and Ireland together to be half the population of England and Wales, the total annual mortality in the united kingdom from this disease will be found to be 34,260. The data of this calculation are under the truth, that no objection may be made to the general inference. In order to answer the question, therefore, respecting the beneficial effects of the vaccine inoculation, I would state it as follows: supposing every person in the united kingdom who never has passed through the small-

* The total population of the metropolis according to those returns, is 864,845, of whom 117,802 are in parishes not comprehended in the bills of mortality.

pox to be immediately inoculated with the vaccine infection, and that it should take effect, the small-pox would in a few months be totally extinct, till fresh infection should be imported from beyond the seas. Hereby upwards of ninety-three lives would, at a daily average, be saved within the three kingdoms. Nor would any disease be substituted in its room, for the vaccine infection does not spontaneously propagate itself by effluvia like the small-pox, as it has been found incapable of being communicated but by artificial insertion, or casually by the contact of the cow's teats.

Q. Have you ever heard of any objections or prejudices against the Jennerean system of inoculation?

A. I have already stated my own prejudices, that it, *primâ facie*, appeared highly improbable, and almost incredible, that any discovery could be made which could eradicate a disease much more afflictive to humanity than the pestilence; but besides these, I have heard of many objections in the practical detail of this inoculation. One or two I beg leave to detail to the Committee. I made it a particular study to trace and ascertain such grounds of objection as I could hear of, *and I have found all of them founded on fallacy and misrepresentation.* The first I shall mention is a report that prevailed about seven or eight months ago, in the western part of Middlesex, and put a total stop to the vaccine inoculation in that neighbourhood. It was given

given out, and believed, that two soldiers of the 10th regiment of dragoons, quartered at Hounslow and Brentford, had died of the cow-pox. An opportunity of investigating this soon afterwards offered; for in my attendance on one of the officers who was ill (Mr. Sloane), he told me he had seen the men while under the small-pox, that he had interrogated them as to their having had the cow-pox, and that they had informed him that their arms had been punctured, but that they had never taken it. He made further inquiry of the assistant surgeon of the regiment, who performed the operation, and who confirmed the information he had had from the men themselves; adding, that the lancets with which the supposed cow-pox operation was performed, were so mixed with other lancets armed with the small-pox infection, that he did not know which was which. Another instance of fallacious report, which created a serious prejudice to the vaccine inoculation in the city of London, occurred to the child of an eminent merchant, Mr. Boddington, which also was said to have had the small-pox after the cow-pox. I learnt, upon inquiry, that the child could not possibly have had the small-pox, for the inflammation on the arm was at the height on the fourth and fifth days, and went off without either variolous pustules or fever; *whereas the inflammation ought not to have occurred until the seventh day, if it had been the genuine small-pox.* A stronger proof than

this could not have been brought of the security afforded by the cow-pox; for the inflammation merely served to prove that the variolous matter was sufficiently active and properly inserted; and the like appearance would have occurred if this child had previously had the small-pox.

Q. Is there not a spurious and degenerate kind of vaccine infection?

A. There is a spurious kind derivable from the cow's teats, which has occasionally been mistaken for the true vaccine virus. There is also a degenerate kind, and I believe one of the most common sources of error has arisen from using this degenerate kind; for it is found here, as well as in the small-pox, that after the pustule has advanced to its last stage, a peculiar acrid matter is produced, entirely different from the true specific virus of these two diseases. I ought to mention that my opinion on this point is founded on the testimony and authority of others, and not on my own observation and experience.—*Withdrew.*

No. 11. *Mr.* KNIGHT, *Surgeon and Inspector General of the Army Hospitals, called in and examined.*

Q. Whom do you look upon as the author of the vaccine inoculation?

A. I know of no one who has the least pretension to it but Dr. Jenner.

Q. From

Q. From your official situation can you speak of any peculiar advantages it possesses over variolous inoculation, when introduced into the army?

A. Every advantage that can arise from substituting a mild uncommunicative disease without danger or anxiety, in the place of one that is pregnant with both.

Q. Is there not a spurious kind of vaccine inoculation?

A. There is; the spurious arises, as far as I know, from the matter being taken in *too advanced a period of the pustule*; as here it seems to be decomposed, and no longer to retain its specific poison.

Q. Do you think it is easy to distinguish the true from the spurious sort?

A. I do not think it easy but to the eye of experience.

Q. Have you ever been called in to cases where children have been inoculated with the spurious sort?

A. I have seen several cases of the spurious kind.

Q. How is the spurious distinguished from the true?

A. I know of no means of distinction abstracted from its appearance on the arm: the spurious is distinguishable by the inflammation commencing too early, being more irregular, with a less pustule, than is usual in the true sort, and drying

away too quickly. The patient may have the disease spuriously, and have the small-pox afterwards.

Q. May not the same arise from the inoculation of the small-pox?

A. Yes; under the same circumstances.

Q. From the superior mildness of this disorder is it not more easy to make mistakes with regard to patients having taken the disorder than it is in the small-pox?

A. As a disease void of eruption, to mark the constitutional infection, it certainly is.

Q. Are the appearance and the progress of the true cow-pox uniform?

A. It often varies; the same happens in the small-pox.

Q. Can the spurious sort be universally distinguished from the true sort by the days on which the disorder first appears and turns?

A. Not by certain days or periods.

Q. Is it not necessary to have considerable medical skill as well as experience to distinguish between the two sorts?

A. I should think experience necessary; and to the want of that knowledge, which the eye of experience gives, I attribute the whole of the discredit that has been occasionally thrown on the cow-pox.

Q. Is the disorder liable to wear out by passing through a number of subjects?

A. With

A. With good management I think it capable of being transmitted to any indefinite time.

Q. How long will a lancet retain the specific poison?

A. It is impossible to say: I don't hold it a good mode to retain vaccine matter by the lancet. It is better done between two pieces of glass, properly guarded at their edges.

Q. How long will the infection so conveyed continue?

A. It is difficult to say: a month, or more, or not a week.

Q. Do you know of any disorders that have been supposed to have been excited in the constitution by the vaccine inoculation?

A. I know of none, nor have I belief in any.—*Withdrew.*

JOVIS 25° DIE MARTII, 1802.

ADMIRAL BERKELEY *in the Chair.*

Dr. BENJAMIN MOSELEY *called in and examined* *. No. 12.

Q. Are you acquainted with the vaccine inoculation, and what is your opinion of it?

* See Appendix; observations on Dr. Moseley's evidence.

A. I am not conversant in the practice of it; I have seen a great deal, and heard much concerning it. In respect to my opinion, I think it requires more time than has elapsed since the practice of it, to enable me to give a correct opinion; neither do I think it can properly be done until the enthusiasm which has accompanied this novelty in medicine subsides. I attempted at the time when this practice first spread itself (in a medical miscellaneous work), to arrest the hurry which I perceived was bearing away the public opinion like a torrent; but I then found inculcating caution had no effect, and there was no reasoning with minds in a state of inflammation. I accordingly suppressed all further observations which I intended to publish, as I should then have done no good, and probably have made many people unhappy, for the subject then stood on theory and analogy. How far the cow-pox may be advantageous and preferable to the small-pox must depend on time and experience. If the cow-pox, as it is said, be a certain preventive against the small-pox, so that people who have had the cow-pox can never have the small-pox; if, as it is said also, it does not leave any foul humours in the blood, or vitiate the constitution of people inoculated therewith; if, as it is moreover said, it be a disease mild in its progress, and safe in its termination—for introducing the cow-pox, and suppressing the ravages of the small-pox, Dr. Jenner

Jenner has conferred a most essential benefit on mankind: but on these points I am not yet satisfied.

Q. Have you found since the rapid progress of this new method, *which has embraced nearly two millions of people*, that your first caution has been confirmed by any failures of it, in preventing the small-pox, within your own knowledge?

A. I have *heard* of some instances.

Q. Can you name them?

A. I *cannot at present.*

Q. Do you think that you could procure them for the Committee?

A. I have not the means at present, having none of the vouchers in my possession.

Q. Can you inform the Committee of any persons whom they might summon to give information upon this subject?

A. No.

Q. Do you know whether the cow-pox is contagious?

A. I do not believe it is.

Q. Do you know of any instance where it has proved fatal?

A. I know of none.

Q. Do you know of any instance where it has conveyed any constitutional disease?

A. Not of my own knowledge, but *I have heard* that it has.

Q. Can you specify the instance?

A. I

A. I *cannot*.

Q. Did you receive the information relative to any failures of the vaccine inoculation from medical persons immediately attending the patients, or only from general conversation?

A. I have had information from both.

Q. Can you recollect any of the medical persons from whom you had this information?

A. I mentioned before, when I ceased to make further inquiry into the subject, I destroyed all information I had received respecting the cow-pox, and since that time I have thought no more respecting it. *At present I cannot recollect any name.*

Q. Since you laid aside the design of publishing upon this subject, has the extensive practice of vaccine inoculation confirmed or weakened your doubts with regard to its efficacy?

A. My opinion has undergone but very little alteration, but I am inclined to think more favourably of it.—*Withdrew.*

No. 13. Robert Pope, *Surgeon at Staines, called in and examined.*

Q. Did you attend any of Lord Berkeley's family with the small-pox?

A. Yes, the servant-maid, who had the confluent small-pox to a violent degree, which led me to pronounce the disease would most likely be fatal.

fatal. The effluvia arising from her body in my opinion was sufficient to infect any person in the family who had not had the disease, or the cow-pox; it proved fatal, as I foretold.

Q. Are you acquainted with any transactions relative to the inoculation of one of Lord Berkeley's children with matter from this patient?

A. I was informed by Lady Berkeley that her child was inoculated by Dr. Jenner from this patient, and which child was not infected with small-pox.

Q. What reason do you assign for its not having taken the infection from so virulent a subject?

A. The reason I assign is, its having been inoculated before with cow-pox by so careful a person as Dr. Jenner.

Q. Have you seen this child since?

A. Yes; I know the child to be in perfect health.

Q. What was your original opinion about the vaccine inoculation?

A. I was inimical to it at first, and persuaded some of my patients who were disposed to be inoculated therewith, from it, not being fully satisfied in my own mind.

Q. Have you since changed your opinion? and for what reasons?

A. Yes, I have since changed my opinion, being pretty fully convinced that the vaccine inoculation,

culation, with proper vaccine matter, will prevent the patient from taking the small-pox.

Q. Have you practised the vaccine inoculation since that period, and to what extent?

A. Yes; not to a great extent, but to a considerable number of patients.

Q. Have you ever found it fail? or the patients, who had received vaccine inoculation, attacked with the small-pox?

A. No.

Q. Have you known any accidents happen from inoculating with the spurious sort?

A. No.

Q. Is it not easy to distinguish the spurious from the true?

A. Not having seen the spurious, I do not think myself competent to judge.

Q. Did you ever see the disorder come out and produce inflammation, and yet go off without giving the patient the disorder?

A. I think I have.

Q. Are the days of the disorder's coming out and turning perfectly regular?

A. I think not.—*Withdrew.*

No. 14. *Lord* BERKELEY *called in and examined.*

Q. Are you acquainted with any circumstances relative to the vaccine inoculation which happened to your Lordship's family? and relate them.

A. My

A. My youngest son was inoculated with the cow-pox by Dr. Jenner, at six months old, and went regularly through the course. About a year after that period, a maid-servant in the family caught the small-pox in the natural way, and was attended by Mr. Pope the surgeon, from Staines; he pronounced the girl to be in a very dangerous situation. Having in the house at that time three persons only who had been inoculated with the cow-pox, the child above mentioned, a maid-servant, and a little girl, I was desirous of proving the efficacy of the vaccine inoculation. I sent for Dr. Jenner from London. On his arrival, he persuaded Lady Berkeley and myself to consent that the child and one of the girls should be inoculated with the small-pox from the maid-servant then ill. She was in such a state that I hesitated giving my consent, but upon his assurance of no danger, he was permitted to inoculate the child and one of the girls: the other girl was not inoculated. The result from the inoculation was of no consequence, the child continuing in perfect health, and has been so ever since. The girl that was inoculated with the cow-pox four years before, continued in the same health as usual, the inoculation with the small-pox taking no effect. The other girl that was not inoculated attended on the maid-servant the whole time until her death, and resisted the infection. The effluvia in that part of the house

was so offensive, that all the servants were obliged to be removed to another part.

Q. Are you acquainted with any particulars relative to the cow-pox, which induce you to place such implicit credit in its efficacy in repelling the small-pox?

Q. There is an old servant in my family, now seventy-two years of age, who had the cow-pox from milking cows *when a boy fifteen years old*, who from that time has never been in the least cautious in guarding himself from the small-pox, but has exposed himself repeatedly without being sensible of its effects. I mention this circumstance because it is *supposed* that the cow-pox is *only a temporary* security against the small-pox.

Q. Did you ever know that he was in company with an infected person?

A. I saw him sitting next to a boy that was said to be in a state of infection, having the small-pox visibly out upon him.—*Withdrew.*

No. 15. *Mr.* JOHN RING, *Member of the Royal College of Surgeons, called in and examined.*

Q. Whom do you look upon as the author of the vaccine inoculation?

A. Dr. Jenner.

Q. What is your opinion of that discovery?

A. That

A. That it is beyond all comparison the most valuable and the most important discovery ever made by man.

Q. How far do you think vaccine inoculation may be depended on as a preventive of the small-pox?

A. I think it a perfect and permanent security against the future infection of the small-pox.

Q. Have you been in the habit of inoculating with the vaccine virus? and how many persons may you have inoculated with it?

A. I have inoculated upwards of 1200 persons with that virus.

Q. Have you ever exposed any of those patients to the small-pox afterwards?

A. I have exposed a vast number of those patients to the small-pox, and from the result of my inquiries have reason to believe that at least 1000 of them have been either voluntarily or involuntarily exposed to that infection, which they all *resisted.*

Q. Is the vaccine inoculation attended with any danger?

A. In my opinion it is attended with no danger, unless from ignorance or neglect.

Q. What will most effectually promote the practice?

A. The sanction of Parliament.

Q. What in your own opinion will be the consequence of vaccine inoculation?

A. The

A. The annihilation of the small-pox.

Q. In what light do the authors, who have treated upon this subject, and your own correspondents, consider this discovery of Dr. Jenner?

A. The authors whom I have read, and the correspondents from whom I have heard, consider it as the most valuable discovery ever made.

Q. If Dr. Jenner had kept this discovery to himself, what emolument do you think he might have expected from his practice annually?

A. I think his practice might have been worth at least 10,000*l.* per annum, it being well known that certain individuals have acquired as much, or more, by the *ordinary practice* of physic.

Q. Have you known any humours or disorders supposed to be excited by this mode of inoculation?

A. All humours and disorders which happen after any species of inoculation, are commonly attributed to that inoculation by persons who are prejudiced against the practice; and others are sometimes influenced by their opinion. I know no instance where the cow-pox has occasioned any other complaint than what may be occasioned by any other disease which is equally mild. I am of opinion that every disease is capable of exciting other diseases or humours in proportion to its magnitude. The magnitude of the cow-pox depends much upon the treatment.

Q. Were

Q. Were you in great practice of inoculating for the small-pox?

A. I never cultivated that branch of practice in any particular manner, nor kept any account of the number which I inoculated in that way, but suppose it might amount to about 600.

Q. How many of those 600 died?

A. About one in every hundred. My own opinion is, that in London, on an average, at least as many as six in 600 inoculated with the small-pox die. The reasons of a greater mortality prevailing amongst persons inoculated with the small-pox in London, are the unwholesomeness of the atmosphere, and the frequent necessity of inoculating children at an improper age.

Q. Have you known any accidents happen from inoculating from a spurious kind of cow-pox?

A. None which I can for a certainty ascribe to that cause.

Q. Have you been called in to attend disorders which were said to have arisen in consequence of the vaccine inoculation?

A. I have been consulted concerning a number of diseases which ignorant persons attributed to vaccine inoculation; but I know of none, except trivial eruptions, which I can ascribe to that cause, and even those eruptions have spontaneously disappeared.

Q. Are the days of the disorder's coming out, and turning, perfectly regular?

 A. There

A. There is no precise period for the rise and decline of the vaccine pustule. The inoculation of the cow-pox, in that respect, is subject to the same law, and liable to the same variation, with the inoculation of the small-pox.

Q. The cow-pox being a much milder disorder than the small-pox, is it not more difficult to ascertain whether the patient has had the regular course of that disorder, than of the small-pox?

A. It is not more difficult to determine whether a patient has had the regular cow-pox, provided care is taken not to interrupt the regular progress of the vaccine pustule by friction.

Q. Did you ever know local inflammation take place after vaccine inoculation, and yet go off without producing the disorder?

A. I have known local inflammation produced both from inoculation with vaccine, and inoculation with variolous matter, without being followed by any pustule. In this respect therefore the two inoculations are similar, and I know of no advantage either in this or any other respect which the inoculation of the small-pox possesses over that of the cow-pox.

Q. Have you ever seen the spurious sort of cow-pox?

A. I have seen it in the cow.

Q. Have you ever seen a pustule produced, without the complete disorder following?

A. I

A. I have seen a spurious pustule which has not been followed by the real disorder.

Q. Do pustules of this sort differ from the genuine in the days of their appearing and turning?

A. They differ much. They commonly appear on the first or second day of inoculation, and arrive at their height about the sixth day, after which they soon disappear. I consider this not as a vaccine disease, but merely as a festering in the part where the puncture was made.—*Withdrew.*

Adjourned.

VENERIS 26° DIE MARTII, 1802.

ADMIRAL BERKELEY *in the Chair.*

The Rev. G. C. JENNER *called in and examined.* No. 16.

Q. Are you conversant in the practice of vaccine inoculation, and what numbers have you inoculated?

A. I am; and have inoculated 3000 persons.

Q. In that number have you met with any unfavourable cases?

A. Not one; although I have inoculated persons from the *earliest infancy* to *eighty years of age*, and under those circumstances in which it would

not be prudent, or indeed safe, to inoculate with variolous virus; such as children at the time of dentition, and women in every stage of pregnancy, from the first month to the last week.

Q. What number of your patients have been subjected to the test of small-pox infection, and with what effect?

A. Upwards of 200 of my patients have since been inoculated with active small-pox matter, and at least an equal number exposed to the contagious effluvia of that disease, but in no instance was the small-pox produced. On the arms of some of those inoculated with small-pox, a slight local inflammation shewed itself, which disappeared in the course of four or five days. Some of these persons were put to the test of the small-pox after the period of a year.

Q. Is the perfect pustule always to be distinguished from the imperfect or spurious?

A. Yes, by those who have paid a proper attention to the practice of vaccine inoculation. I have published my sentiments on the imperfect or spurious vaccine pustule in the Medical and Physical Journal, which I beg leave to lay before the Committee.

Q. Will vaccine inoculation supersede the infection of the small-pox, when the patient has been exposed to a variolated atmosphere previous to inoculation?

A. From my own experience I am induced to believe

believe it will, and I am confirmed in this opinion by a circumstance which occurred in Gloucestershire under my immediate observation. A boy infected with the natural small-pox came home to his father's cottage: four days after the eruption had appeared upon this boy, the family (none of which had ever had the small-pox), consisting of the father, mother, and five children, were inoculated with vaccine virus. On the arm of the mother it failed to produce the least effect, and she had the small-pox; but the rest of the family had the cow-pox in the usual mild way, and were not affected with the small-pox, although they were in the same room, and the children slept in the same bed with their brother, who was confined to it with the natural small-pox, and subsequently they slept with their mother.

Q. To what did you attribute the failure of the vaccine virus on the mother?

A. To the use of *dried* vaccine virus; which does not in all cases prove so active as that which is taken immediately from one arm, and inserted into another.

Q. Do you then imagine that *children* are more susceptible than persons at a *more advanced period of life*, as this family were all inoculated with the same virus?

A. From my general observation I find them to be so.

 Q. What

Q. What is your general opinion of vaccine inoculation?

A. That if the practice were universally adopted it would in a short time annihilate the small-pox.

Q. How long had the matter with which this person was inoculated been taken from the arm?

A. I do not know; I did not inoculate the person myself, but was present when the operation was performed by my brother Mr. H. Jenner, surgeon, at Berkeley.

Q. Have you known many instances of the vaccine inoculation not succeeding?

A. In the early part of my practice, I met with many instances of the kind, which were owing to my using vaccine virus taken at *too advanced a stage of the disease*; but since I have made it a rule *never to inoculate with matter after the eighth or ninth day of the disease*, I have seldom met with a failure. I inoculated 238 individuals on the same day with *recent* vaccine virus (taken on the eighth day of the disease), and every one of them had the cow-pox in the most perfect manner.

Q. Has it ever happened in your experience, that of persons inoculated with the same virus, some have had the perfect disorder, and some the spurious?

A. I refer to the Medical Journal above mentioned as an answer.

Q. Is the progress of the disorder, as to its coming out, and turning, uniform?

A. In

A. In general it is. I have, however, seen a few exceptions in my practice. One or two cases occurred where the progress of the disease was retarded for at least a fortnight before there were any visible appearances of the inoculation having succeeded; but afterwards the pustules made their regular progress.

Q. Is the course of the spurious disorder universally quicker than the perfect; so as to form a certain criterion between the sorts?

A. It has been so in every case that has come under my observation.

Q. Do you consider the pustule alone as constituting the complete disease?

A. When the pustule assumes the genuine character, the patient may be considered as safe from any future attack of the small-pox, although there has been no apparent constitutional indisposition.

Q. Can the same patient take the cow-pox twice?

A. I conceive a second inoculation, if the first had been efficient, would produce only a slight local inflammation round the punctured part. I never could produce the regular pustule a second time, though I have made many experiments—I have seen the *perfect vaccine pustule after the small-pox.*

Q. Can the inoculated small-pox be taken a second time?

A. I cannot speak from my own experience, but

have heard of many cases of the kind from respectable authority.—*Withdrew.*

No. 17. *Mr.* BIRCH, *Surgeon at St. Thomas's Hospital, called in and examined.*

Q. Are you conversant with the vaccine inoculation, and what is your opinion of it?

A. I have seen it often, but have not practised it. I do not think I have attended to it enough to give a positive opinion.

Q. Have you ever known of any cases of real vaccine inoculation which have failed?

A. When the natural small-pox has appeared in St. Thomas's Hospital, I have frequently been accustomed to inoculate such patients as chose to submit to it; and with success. On this occasion it was proposed to me that I should inoculate a child at its mother's breast with vaccine virus, the mother having been admitted for a fever, which proved small-pox. I objected to sacrificing my own experience to experiment, but left it to be done by another gentleman. The child had the vaccine pustule satisfactorily in the opinion of those who inoculated it. The mother went safely through the natural small-pox. After the disease had terminated in mother and child, the child was taken very ill with fever, and they thought it would die, but on the appearance of an eruption it grew better. They were dismissed in this state

from

from the Hospital; I followed them to their lodging, and this eruption of the child in my belief was the small-pox. It was at that time called an hybride disease, and would not have been allowed by the advocates for vaccine inoculation to have been small-pox, if similar circumstances soon afterwards in the Hospital had not made it appear that the patient, having taken the natural small-pox, would not be prevented from the consequence of it by the vaccine inoculation.

Q. What similar circumstances do you allude to?

A. Two or three cases of the small-pox appearing after the vaccine inoculation.

Q. Who inoculated these patients with the vaccine matter?

A. I believe *one of the physician's pupils, but cannot tell his name.*

Q. Who are the best evidences to call in order to prove these facts to the Committee?

A. Mr. Whitfield, the apothecary, who would have been the best, is dead; his son, perhaps, now, who is apothecary to the Hospital, and lives there.

Q. Were any of these cases fatal?

A. No.

Q. Was your opinion of the vaccine inoculation favourable before any of these cases occurred?

A. I have been so frequently deceived by reports of facts in other matters, that I am apt to doubt,

and

and not to be convinced but by repeated facts under my own inspection : in the instance of vaccine inoculation I had not seen enough to judge.

Q. In the instances you have mentioned, whose particular department is it in an hospital to inquire into the facts ?

A. In St. Thomas's Hospital we are particular. The surgeons never direct medicines but when the physician is absent.

Q. Do you consider inoculation under the head of medicine, or operation ?

A. Operation ; the province of the surgeon : but if any fever should arise beyond what is expected, the physician is always called in in that hospital.

Q. Did you not then make inquiry into the particulars of these patients who were inoculated with the vaccine virus, and who you say were afterwards attacked with the small-pox ?

A. They were not all under my particular care, but I saw them *as I passed through the wards*, because the circumstances *were mentioned by the young gentlemen who were following me.*

Q. Did you not make particular inquiries respecting the treatment they had undergone, and whether they had been inoculated in the manner recommended by those who have treated upon the cow-pox ?

A. I was *not very particular in my inquiries*,

because I have always had reason to be so well satisfied with the instructions which Baron Dimsdale had given me for inoculation.

Q. Then you cannot take upon yourself to say that these patients were properly inoculated with the true vaccine virus?

A. I verily *believe* they were, because they had the disease to the satisfaction of the surgeons, and because it was afterwards allowed by the gentleman who proposed it, that the vaccine inoculation would not always prevent the small-pox if the patient had been *in the way of natural infection.*

Q. Are you *certain* that those patients *had not received the infection of the natural small-pox previous to their inoculation with the vaccine virus?*

A. I *think they certainly had*; but I think if they had been inoculated with small-pox matter instead of vaccine matter, they would only have had the inoculated small-pox.

Q. You have stated that the surgeons who inoculated these patients with the vaccine matter were perfectly satisfied that they had taken it in a right way; can you inform the Committee who those surgeons were?

A. The surgeons were Mr. Chandler, myself, and Mr. Cline. We have each of us so much to do, that we pay no attention to each others patients, unless called upon for advice.

Q. On what day after the vaccine inoculation did

did the eruption, which you believe to be the small-pox, appear upon the child?

A. I made no notes, and cannot recollect.

Q. In the other cases was the small-pox longer in appearing than in the usual progress of the disorder?

A. I cannot answer that question, not attending them.

Q. Have you known any instances of other disorders or humours supposed to have been excited or produced by vaccine inoculation?

A. Not of myself, *only by report.*

Q. Can you inform the Committee to what medical persons or others, they can apply to receive that information?

A. I have heard much more from gentlemen practising in the country, than in London. Mr. Davis, of Bicester, in Oxfordshire, was a strong advocate for the cow-pox a long time. I have seen him within three months, and he told me that he and Mr. Grosvenor of Oxford had given up the vaccine practice from circumstances which had occurred to them, and added, that he now only wondered they were ever afraid of the small-pox. Mr. Slater, of High Wycombe, told me last year that he was inoculating very many persons about that place for the small-pox, because of the accidents and failures of the vaccine inoculation. Mr. Nooth, of Bath, told me lately of a strong case at Bath, where

where the small-pox followed the vaccine inoculation under very accurate circumstances.

Q. Have you heard of any other instances where the small-pox is supposed to have followed the vaccine inoculation, where the patient could not have received the variolous infection previous to the vaccine?

A. Not that I can mention.

Q. Are there any circumstances you would wish to add on the subject?

A. It appears to me that the absorbent system receives some particular change after the inoculation of the small-pox, which makes it for ever incapable of being injured a second time by that active poison; therefore I have been taught not to consider my business as finished after inoculating for small-pox, till I have restored the skin and glandular system to their original healthy state, which I am accustomed to recommend to be done by friction, bathing, clothing, and diet.

Q. Do you know the average loss in your practice by inoculating the small-pox?

A. I never had the misfortune to lose one out of more than 200.

Q. Are you aware of this circumstance in the vaccine inoculation, that the security which the constitution receives, depends upon the perfect progress of the pustule?

A. I have *understood so.*

Q. Are you aware of the spurious vaccine pox?

A. I

A. I have heard too much of that, and all the failures which have been talked of have been attributed to it.

Q. In the child before mentioned was the eruption a violent one?

A. By no means.

Q. Do you know of any instance of a person being inoculated for the vaccine pox catching the small-pox upon being exposed to the infection?

A. I do not.—Withdrew.

No. 18. *Dr.* SAUNDERS, *late Senior Physician to Guy's Hospital, called in and examined.*

Q. Whom do you look upon as the first discoverer of the vaccine inoculation?

A. Dr. Jenner, in so far as I consider him as the first person who ascertained the various and important facts upon the subject, and who made an application of those facts for the benefit of mankind.

Q. Do you conceive the new system of inoculation introduced by Dr. Jenner to be perfectly safe, and an efficacious preventive of the small-pox?

A. Yes, I do; provided the vaccine virus be properly introduced into the system, and go through its complete progress.

Q. What

Q. What is your general opinion of the vaccine inoculation?

A. That it is one of the most important discoveries ever made for the benefit of the human race; and that if the practice continue to prevail, it bids fair ultimately to extirpate the poison of the natural small-pox.

Q. If Dr. Jenner had not made this discovery public, do you think it might have been a source of greater emolument to him?

A. Most certainly; provided he had rendered the subject more studiously mysterious, and by that means secured to himself in some degree a monopoly of the practice, instead of acting towards the public and the profession in the liberal and candid manner he has done.—*Withdrew.* Adjourned.

MARTIS 30° DIE MARTII, 1802.

ADMIRAL BERKELEY *in the Chair.*

Dr. JOSEPH MARSHALL *called in and examined.* No. 19.

Q. At what period, and where, did you first begin to practise the vaccine inoculation?

A. In the summer of 1799 in Gloucestershire.

Q. From

Q. From whom did you receive your instructions on this subject?

A. From Dr. Jenner.

Q. Did you not introduce this practice amongst the troops in some of his Majesty's garrisons in the Mediterranean, and in different parts of the continent of Europe?

A. In July 1800, accompanied by Dr. John Walker, who assisted me in some of the inoculations, I commenced this practice on board his Majesty's ship the Endymion, eleven of whose crew were inoculated, and went through the disease without any remission of the ordinary duty, or any deprivation of their usual allowance of wine or provisions.—[*Sir Thomas Williams's certificate delivered in.*]—On my leaving England, his Royal Highness the Duke of York was pleased to give me letters to General O'Hara, and the Hon. Arthur Paget, his Majesty's Minister at the Court of Sicily. On my arrival at Gibraltar, I delivered his Royal Highness's letter to General O'Hara, in consequence of which the soldiers of the garrison who had not had the small-pox were inoculated with the cow-pox. The plague at this time prevented the garrison from receiving their usual supply of fresh provisions from Barbary, and Spain was shut against them by the war; their food in consequence was principally salt provisions sent from England, and they generally indulged in drinking new wines. This diet, added to the

excesses which soldiers usually commit, put the cow-pox to a severe trial; especially when it is further considered, that they performed their fatigue, and ordinary regimental duties, as usual, under the inoculation; and so far was the cow-pox from preventing their doing this, that not one single case occurred where medicine was required, or any application was requisite to the inoculated part, *though the heat of the atmosphere was frequently upwards of ninety degrees of Fahrenheit's thermometer.* In corroboration of this, I beg leave to lay before the Committee the surgeon-major's certificate. At Minorca the same success attended the inoculation, where it was also generally introduced amongst the inhabitants, and their medical men instructed in the practice. Such seamen also on board of the British fleet under the command of Admiral Lord Keith as had not had the small-pox were inoculated with the cow-pox; and so extremely mild were its symptoms, that the captain of the fleet, Philip Beaver, Esq. declared he should have no objection to meet the enemy with the whole of the crew of each ship of the fleet under inoculation. At Malta its practice was also generally introduced both amongst the troops and inhabitants; and an hospital called the *Jennerean Institution* was established by the Governor, Sir Alexander Ball, for the inoculation of the poor gratis. In this island the ravages of the small-pox had always been dreadful, and they were under the

greatest apprehensions of it at the time of my arrival, as some of the men of war, then in the harbour, had the small-pox on board, and had buried several of their men. This apprehension was also entertained by the Admiral, and General Sir Ralph Abercromby, each of whom issued orders for the inoculation of such seamen and soldiers with the cow-pox, under their respective commands, as had not had the small-pox. The benefit the island of Malta received from the introduction of this discovery, will be best described by the certificate of Sir Alexander Ball. In Sicily the small-pox had been, if possible, still more fatal and more dreadful than in Malta; for the computation of deaths occasioned by it in the year preceding my arrival, *exceeded* 8000 *in the city of Palermo alone.* The introduction of the cow-pox was therefore received with enthusiasm, and an hospital similar to that at Malta was immediately established by the King; and although the small-pox soon after my arrival in the city again, appeared, it was immediately stopped by the practice of the cow-pox inoculation, which was extended through the whole island. The benefit received at Palermo from the introduction of the cow-pox, excited a strong desire for its practice in Naples, where the small-pox has always been considered as very fatal. An hospital was also there established by his Majesty, and the practice of inoculation with the cow-pox was speedily adopted throughout the

whole kingdom; his Majesty having commanded that children to be inoculated, attended by surgeons to be instructed in the practice, should be sent from each province to the hospital at Naples, and thus carrying both the knowledge of the disease, and means for the practice of it, into their respective provinces. On my leaving Naples the King was pleased to express his approbation of my services by appointing me his physician extraordinary, and presenting me with a gold medal; he also caused to be delivered to me a dispatch to his Ambassador in London, in which he was pleased to express his satisfaction at the benefit his kingdom had derived from this discovery, a copy of which, with the Ambassador's note to Lord Hawkesbury, I beg leave to deliver in to the Committee. I have also extended this inoculation to other parts of Europe, to Rome, Leghorn, and Geneva, and in every instance where tried, I found it resisted the infection of the small-pox.

Q. Did you in the course of this tour ever obtain intelligence that such a mode of inoculation was ever known or communicated by any other person than Dr. Jenner?

A. No, I never did, and conceive Dr. Jenner to be the inventor; and so far from the inhabitants of those countries having the most distant idea that so slight a disease as the cow-pox should have the power of resisting the small-pox, they frequently declared it to be nothing less than miraculous,

raculous, nor did they, till after repeated and public trials of its efficacy, put belief in it. As an example of the disbelief entertained by the medical men of Naples, I beg leave to relate a trial which they instituted soon after my arrival at Naples, and without my knowledge, at the Foundling Hospital, where they first inoculated with the cow-pox a considerable number of the children, and after they had passed through the disease, exposed them to all possible modes of infection from the small-pox, both by inoculation and by making them sleep in beds with people infected with the small-pox. This trial, so publicly made, and which had excited the attention of the whole city, completely established the reputation of the cow-pox resisting the infection of the small-pox, and they appointed a deputation of the Medical Committee to me, publicly to express their conviction of its efficacy.

Q. What number did you inoculate, or were inoculated under your directions?

A. The number was very considerable; I should suppose upwards of 10,000, many of whom were subjected to every possible means of being infected with the small-pox—all of whom resisted. I should suppose this number would amount to 2000, but have not kept any accurate account.

Q. Did you ever observe the vaccine inoculation to introduce or excite any other disease?

A. No, I never did; on the contrary, I have frequently

frequently observed that children in a weak state of health, have immediately after passing through the vaccine inoculation begun to thrive and become vigorous.

Q. Do you think that a person whose constitution has distinctly undergone the vaccine disease is in future susceptible of the same disorder?

A. So far as my experiments have been made, I am inclined to believe he is not.

Q. Have you inoculated many such a second time, and what appearances have you observed to follow?

A. I have inoculated I suppose twenty, and the appearance of the inoculated part has been such as usually follows the introduction of any matter; local inflammation being generally excited by the small formation of matter in the part.

Q. Do you think that those who have already gone through the small-pox, either casual or inoculated, are susceptible of the vaccine disease?

A. I have never made any experiments of that nature.

Q. Is the spurious pustule of cow-pox easily distinguishable from the real?

A. Undoubtedly, a person who has once seen the true cow-pox pustule can never be mistaken.—*Withdrew.*

No. 20. *Mr.* JOHN GRIFFITHS, *Surgeon, called in and examined.*

Q. Did you attend the Bishop of Winchester's family to inoculate his grandchild with vaccine fluid?

A. I did inoculate three of Mr. Garnier's children, who are the Bishop's grandchildren, at the palace at Chelsea, all of whom went through the disease perfectly well, and have had no complaint since, that I have heard of. I saw Mr. Garnier last year, who informed me the children had never been ill since: I was perfectly surprised to hear there had been any reports to the contrary. I have inoculated upwards of 1500 persons with the vaccine matter, and not one of whom have had any untoward symptom, and I have inoculated three of my own children at various periods within these three years. I can give instances where I have inoculated two children of two families in the same house; one child of each family sickened with the small-pox the same evening, and the eruption came out; the other child slept in the same bed, and went through the cow-pox fever soon enough to prevent it taking infection from the other child; and the same thing happened to the other family in the same house. Another instance was a child inoculated for the vaccine. The nurse informed me that her husband had inoculated his own three children for the small-pox on the same day; upon which

which I desired her to bring the child I had inoculated with cow-pox for eight or nine days, that I might see how it went through the disease, and not to bring it after the ninth day, on account of the other children sickening, which they did, and I called about six weeks afterwards to make inquiries; the husband informed me his three children had had the small-pox, but the child inoculated had only its arm sore, which was what I wanted to ascertain, as this child was constantly with them.—*Withdrew.*

Dr. THOMAS DALE *called in and examined.* No. 21,

Q. A letter having been sent to this Committee, informing them that you can give some particulars relating to the cow-pox and its preventive qualities being known for a considerable length of time, state what you know upon the subject.

A. I have *no personal experience of that fact myself,* but *understand* from the information of a medical person highly deserving of credit, that the cow-pox had been known to himself and to some old practitioners in the country, to have prevented completely the introduction of the small-pox into that habit which had previously gone through the vaccine disease, and that this knowledge was founded upon a great variety of cases that had occurred during a period of thirty or forty years, or even more.

 Q. Do

Q. Do you mean the casual vaccine disease, or by inoculation?

A. The casual vaccine disease, the inoculation of that disease having been exclusively introduced by Dr. Jenner.—*Withdrew.*

No. 22. *Dr.* THOMAS DENMAN *called in and examined.*

Q. Do you consider the vaccine inoculation as a safe practice?

A. Perfectly.

Q. Are you of opinion that it is a perfect preventive of small-pox?

A. I believe the vaccine inoculation absolutely prevents the small-pox.

Q. Whom do you consider as the discoverer of the vaccine inoculation?

A. I consider Dr. Jenner exclusively as the discoverer thereof.—*Withdrew.* Adjourned.

MERCURII 31° DIE MARTII, 1802.

ADMIRAL BERKELEY *in the Chair.*

Mr. DAVID TAYLOR, *Surgeon, of Wootton Under-edge, called in and examined.*

No. 23.

Q. Do you know any thing of the letters and papers delivered to the Committee which appear without dates? and can you speak to their contents?

A. That letter was wrote before the 25th of March 1800. As to the case of Mr. Austin's child, she certainly had not the cow-pox, and therefore the eruptions could not be the vaccine; and it is to that case the advertisement [*advertisement produced*] signed by me, which I published immediately after I had examined the circumstances of the case, and subsequent to the above letter, alludes. As to the case at Sodbury, I have no knowledge of it. As to the second part of the letter respecting the old woman at Leighterton, after a full and minute investigation before five or six persons meeting for the purpose, they unanimously determined the former disease not to have been cow-pox, and of course the small-pox must necessarily produce its effect. Respecting the extract of Dr. Jenner's letter to me, it only proves that Mr. Cline,

Cline, who had also examined the case of Mr. Austin's child attentively, was equally satisfied with myself, that she had never suffered with the vaccine disease.

Q. At the time you wrote that letter, had you practised the vaccine inoculation?

A. I had, but in a very small degree; but since I have extended my practice publicly and gratuitously to the number of about 2000 without a single failure.

Q. Have you ever exposed those patients inoculated with the vaccine matter to the small-pox?

A. Yes; I have inoculated at least one third, taking them indiscriminately, with the active small-pox matter; and have never found in any instance a single symptom of variolous disease produced.

Q. Were you acquainted with Dr. Jenner's medical practice in Gloucestershire before he made the discovery of the vaccine inoculation public, and was it extensive?

A. I was acquainted with it: he was situated in a very populous neighbourhood without any practising physician within fourteen miles, well supported, and of course in the most extensive practice.

Q. Do you think that in consequence of his quitting his situation in the country, and coming to London, he has not lessened his income?

A. Most considerably; as two physicians have succeeded to the situation which Dr. Jenner has left,

left, both of whom are supposed to be in considerable practice; and of course Dr. Jenner's former situation cannot be re-attainable. With regard to Mr. Austin's child, I did not see the progress of the disorder; but from the account communicated to me by those who had marked its progress, no medical person having seen the child, I was apprehensive it had not taken the infection, and strongly recommended the small-pox inoculation.

Q. Do you know of any instance of ulcerated arms or humours that have followed the inoculation of the cow-pox, either genuine or spurious?

A. Certainly not.—*Withdrew.*

Dr. LISTER, *formerly Physician to the Small-pox, and now Physician to St. Thomas's Hospital, called in and examined.* No. 24.

Q. Can you give any information respecting the child that took the small-pox in St. Thomas's Hospital after it had been inoculated with the cow-pox?

A. I can speak of a case that happened in July 1800. A woman, Sarah Howard, and a child, Abraham Howard, about twelve months old, at the breast, were admitted for small-pox on the 24th of July. Sarah Howard was taken ill on the 19th of July, and, according to her account, the small-pox appeared on the 20th. Abraham Howard was inoculated

oculated with cow-pox matter on the 26th of July, and became ill on the 2d of August. An eruption was first seen on the 9th, and was first discovered by me on the 12th. It had then only two or three pustules, one on the wrist, and another on the neck, which were scabbing, and contained a small quantity of pus. I did not see them after, but I understand they disappeared in two or three days: but I saw the child afterwards, and there were no marks where the pustules had been. My opinion at the time was, that from the appearance of the pustule it was *impossible to determine the nature of the eruption*; it was probable that it was an eruption connected with *teething*, as the child about that time *cut two teeth*; it might, however, have been local small-pox, such as take place in nurses who have already had the small-pox, but handle small-pox patients; it was possible, however, that it might be constitutional small-pox: but this was unlikely both from its appearing too late after exposure to small-pox infection, and from no illness having preceded it; for the illness which took place on the 2d of August was too long before to be the occasion of an eruption which appeared on the 9th. But whatever was the nature of the eruption, *the case certainly affords no objection to the practice of cow-pox inoculation*, as the child had been so long exposed to small-pox infection before it was inoculated with the cow-pox. In order to throw light on the nature of the

eruption,

eruption, I had desired that matter should be taken from these pustules in order to inoculate with, but by some accident this was omitted.

Q. Do you conceive that the inoculation of small-pox in the metropolis has been one of the great causes of keeping up the infection of that disease, and consequently of its spreading?

A. I have no doubt of it.

Q. What is your opinion of the merits of vaccine inoculation?

A. I believe it to be a much milder disease, and, equally with the small-pox inoculation, to prevent the casual small-pox, and at the same time not to be capable of communicating infection but by contact.

Q. Can you relate any case of small-pox appearing on those who were previously supposed to have been secured from infection by the cow-pox?

A. I cannot state from my own knowledge, but the fact is acknowledged by medical men of experience.

Q. Are there any instances of persons having had the constitutional small-pox after having been inoculated without producing it, and after the arm had produced matter from which the constitutional disease had been excited in others?

A. No instances of that kind have fallen within my own knowledge, but the fact is generally acknowledged by medical men, and a strong case of it is mentioned by a Mr. Dawson, of Sodborough.

In

In the third volume of Medical Transactions there is a case of two persons being inoculated, from whose arms nineteen persons were inoculated; the two first had not the constitutional disease of the small-pox, but took the constitutional disease from those who had the constitutional disease in a regular manner.

Q. Is it your opinion that a constitutional disease is essential to the perfect cow-pox, or that the disorder is contained in the pustule alone?

A. I have no doubt that some affection of the constitution is necessary.

Q. Do you mean such an affection of the constitution as is discernible?

A. My experience of the cow-pox is not such as enables me to say that it can be discerned in every case.

Q. Would you venture to pronounce a patient safe who had had the regular pustule after vaccine inoculation, but in whom you had not been able to discern any constitutional disorder?

A. I should pronounce such a person safe, because I should suppose that the constitutional affection had taken place during the regular progress of the pustule, as sometimes happens in the inoculated small-pox, though it had not been observed.

Q. Do you then think that an essential part to constitute this disease is a constitutional affection

of

of such a sort, as in many cases cannot be discerned by a medical person?

A. I doubt whether there are many cases in which a medical person, if his attention was alive to every circumstance, might not observe the constitutional disease, as happens in the inoculated small-pox.

Q. Do you believe that this opinion with regard to the essential properties of a constitutional affection is prevalent among the faculty and practitioners of this mode of practice?

A. I have no means of knowing the opinions of medical men, but I believe that the generality of medical men believe a constitutional disease necessary.—*Withdrew.*

VENERIS 25° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 26. *Mr.* WILLIAM CUFF, *Drawing-master* *, *called in and examined.*

Q. How long have you been employed in making the plates for illustrating Dr. Jenner's system of inoculation?

A. Between three and four years.

Q. From being so employed have you formed any precise ideas of the difference between the true and spurious vaccine pustule, so as to enable you to speak with confidence upon a view of them?

A. I have seen several hundreds of the true pustule in its different stages throughout the disease, and considerable numbers of the spurious; the difference is so striking between the true and the spurious, even to a common observer, that I think it almost impossible to mistake one for the other.

Q. Was you at Bath when any trials of the vaccine inoculation were performed there?

A. I saw two children in November or December 1800, that were inoculated by Dr. Davis.

* It is but justice to Mr. Cuff to observe, that his delineations and colouring of the vaccine pustule are so beautifully correct and delicate, that when the plate to the "Instructions of the Jennerean Society" (duod. 1803), and to Mr. Ring's Second Volume, is duly viewed and considered, it will not be thought presumptuous to declare, that he stands little chance of being supplanted by any the most dexterous competitor.

When

When I saw them they had the true character of the disease, and one inoculated by Mr. Goldston.

Q. Did you form any opinion of them? and did you communicate it to any person?

A. From the conversation I had with Dr. Davis, I conceived that he had not that knowledge of the disease which I thought necessary; he did not seem to imagine that it would make any difference as to the time at which the matter was taken. He acknowledged to me that he had not so much information as he could wish, and should be happy to have a little more conversation with me, as he found that I had more knowledge than he had himself of this disease. When I returned to town in January 1801, I saw Dr. Jenner, and had some conversation with him on the subject. I then said I was fearful we should hear of some mischief by the inoculators at Bath, in consequence of their having so slight a knowledge of the disease. The two first mentioned children's names were Coles, of Northgate Street, Bath.—*Withdrew.*

Dr. SKEY, *one of the Physicians of the County Hospital at Worcester, called in and examined.* No. 27.

Q. Have you had opportunities of contrasting the relative severity of the small-pox and cow-pox?

A. Yes;

A. Yes. In the spring of last year the small-pox was generally and fatally epidemic in the city of Worcester, and I embraced the opportunity of inoculating a number of children with the cow-pox.

Q. What was the effect?

A. In that district where I inoculated the greatest number, the small-pox contagion ceased to exert its influence, and the number of its victims gradually diminished.

Q. Was the cow-pox uniformly a milder disease than the small-pox?

A. In every case which I witnessed the inoculated cow-pox was incomparably less severe than the natural small-pox.

Q. Did it ever come to your knowledge that any of those patients whom you inoculated with vaccine matter, received the small-pox afterwards?

A. In no one instance; and they were constantly exposed to the small-pox infection, cases of the two diseases not unfrequently occurring under the same roof, and at the same time.

Q. What do you conceive would have been the effect of a previous general inoculation with vaccine matter of the poor in that neighbourhood?

A. It appears to me that many lives would have been saved, since the influence of the small-pox contagion would have been anticipated; and I have never yet known an instance in which any considerable degree of hazard was occasioned by the vaccine inoculation.

Q. From

Q. From your observation are you of opinion that vaccine inoculation takes place of variolous infection previously received, in the same manner that inoculated small-pox does?

A. My observation has been too limited to decide upon that question. In some instances in which the constitution was affected with small-pox, previous to the inoculation with vaccine, the vaccine pustule underwent its peculiar progress at the same time with the small-pox eruption; but my opinion is, that if vaccine inoculation follow within two or three days exposure to small-pox contagion, the latter disease will be superseded.

Q. Did you meet with any instances of the vaccine inoculation not taking effect?

A. I have met with no such instance, in which after a second or third inoculation I did not succeed in giving, as far as I could judge, the vaccine disease.

Q. Have you met with any instances of the spurious sort of cow-pox?

A. No such instances have occurred under my own observation.

Q. Do you conceive that the essence of the disease consists in the pustule alone, or in constitutional disease also?

A. Undoubtedly, in a constitutional affection supervening a local disease.

Q. Do you mean such a constitutional affection as is in all instances discernible?

A. I have not always been able to mark the period of constitutional affection; but as far as I can recollect, I have noticed in the generality of instances some degree of constitutional irritation.

Q. Would you venture to pronounce a patient safe from the small-pox who had had the pustule in the regular manner, but in whom you had been unable to discover any constitutional affection after vaccine inoculation?

A. At this period of the inquiry into the merits of the vaccine inoculation, I should feel no hesitation in pronouncing a person so situated safe from small-pox contagion.—*Withdrew.*

No. 28. *Dr.* LETTSOM *called in and examined.*

Q. Whom do you look upon to be the discoverer of the vaccine inoculation?

A. I consider Dr. Jenner; but after its discovery, and not before, pretensions had been assumed equally unfounded and unjust. It had indeed long been known that persons who had received the cow-pock from milking infected cows were thereby rendered incapable of taking the small-pox; but had not Dr. Jenner discovered and practised the inoculation of the cow-pock, I believe it would have been still dormant and unknown.

Q. Do you think that inoculation of the small-pox has lessened the deaths occasioned by the small-pox? *A.* No;

A. No; I think it has increased the number of deaths by extending the disease. About the year 1773 I paid particular attention to this subject; and this afforded some observations applicable to the present inquiry, and decisive upon a large scale of calculation, which a table by figures more clearly evinces. [*Table delivered in.*] It happens that the experience of forty-two years preceding the introduction of inoculation into this country, is already placed in a clear point of view, in the Philosophical Transactions, by Dr. James Jurin, who was a sanguine advocate for inoculation, whose testimony is therefore unexceptionable: his numbers are taken from the yearly bills of mortality; and the reason why the fourteen years from 1686 to 1701 are omitted is because in the bills the accounts of the small-pox and measles are not distinguished in the preceding and following years, but are joined together in one article; so that from them no certain account can be drawn of the numbers of persons that died by the small-pox. It appears by these tables, that out of 1,005,279 burials within the last forty-two years, 1742 persons more have died by the small-pox than the proportionate number as collected from the experience of the first forty-two years, or seventeen more burials in every thousand have been occasioned by the small-pox since inoculation has been adopted.

Q. Does the inoculation of the cow-pox in your

opinion secure the person inoculated from taking the small-pox?

A. I believe so, as the method of inoculation for the small-pox does; with this difference, that the cow-pox is not infectious.

Q. Do you believe that the vaccine inoculation has diminished the fatality occasioned by the natural small-pox?

A. I believe it has lessened the fatality by lessening the number susceptible of taking the small-pox; but the virulence and fatality of the small-pox is equally great in proportion to the number attacked by it. Even in London the bills of mortality are very defective: many parts of the metropolis, I believe Mary-le-bone and other places, are not included in the bills of mortality; so that although the deaths by small-pox annually amount to 2000, probably not more than 600,000 persons contribute to this number. But London and the out-parishes contain nearly 1,000,000 of people, out of which number 3000 probably die yearly by the small-pox, or eight every day; or allowing Great Britain and Ireland to contain 12,000,000 of people, no less than 36,000 of our fellow-subjects are annually sacrificed by the small-pox, a disease more fatal than the plague itself; with this difference, that I believe the small-pox may be entirely annihilated by the cow-pox, and an annual increase of 36,000 inhabitants preserved

to

to the empire, as nearly about eight persons die of the small-pox every day in the metropolis and its environs, or about fifty-six each week; although, from some defects in the bills of mortality, the amount does not exceed forty-five. If we compare the last three weeks of the present March, which include thirty-five deaths, with the number in three weeks of each March for ten years preceding, which amounts in the whole to 697, it will result that the present month is thirty-five less than the average of ten preceding years, that is, from 1790 to 1800, which may, I think, be ascribed to the progress of vaccine inoculation.

Q. Do you think that the cow-pox is ever fatal?

A. I believe that the *genuine cow-pox never is*; I have reason to conclude that about 60,000 persons have been inoculated with the cow-pox. I have heard cursorily of four deaths; but upon *minute inquiry I am convinced that three of them had no connexion with the cow-pox*; of the fourth I have no *accurate information.* Supposing the cow-pox, during the process, occupies fourteen days, it appears by the deaths in London, that on a common average in every 60,000 healthy subjects, seven die in fourteen days without the infliction of any disease but what is considered to occur in the course of Providence.

Q. Were you an early convert to this new system?

A. Knowing the fatality of the small-pox, and the

risk occasioned by inoculation, I was early inquisitive upon this important subject, both from its consequence to mankind in general, and from my acquaintance with some particular families, who had severely suffered by the natural small-pox as well as by inoculation; whilst from those who have adopted the practice of vaccine inoculation, no one unfavourable event that I know of, has resulted: hence I acquired the most favourable opinion of the practice. My experience has not altered that opinion.

Q. Have you known any inconveniences follow the spurious sort of cow-pox?

A. Not from my own experience.

Q. Do you imagine if Dr. Jenner had kept this practice secret to himself, that he might have reaped any considerable emolument therefrom?

A. It is difficult to estimate the amount it might have produced, but I think the pecuniary profits must have been immense. One person by the inoculation of one family by the small-pox was honoured with a title of nobility, and in money and presents acquired about 20,000*l.*; and when a certainty of escaping the small-pox with impunity was known and established, every potentate and great family in Europe must have sought his aid, and in this view his gains must have been almost incalculable.

Q. Could Dr. Jenner long have kept this new practice a secret?

A. On that subject I have paid much attention,

and

and considering the apparent incredibility of this new practice to common observation, and the secrecy with which the Suttonians monopolized the inoculation of the small-pox, to all an obvious disease; and the mode of practising it evident, I think fully that Dr. Jenner might have exclusively kept the new practice to himself for a long period of time, from the difficulty of ascertaining and distinguishing the cow-pox.

Q. Have you ever known patients who had been inoculated for the small-pox undergo that disease a second time at a distant period?

A. I had two relations inoculated under the Suttonian method, both of whom afterwards took the small-pox in the natural way, one of whom died. Within twelve months I have attended two children in different families, the parents of which assured me they had been inoculated for the small-pox a year or two before my attendance, when both were attacked severely with the natural small-pox.

Q. Was there any secret in the Suttonian mode of inoculation, or in that practised by Baron Dimsdale?

A. The mode practised by them was the same as now adopted; but by some vague pretensions of the former, the public opinion ran very general in their favour, till Baron Dimsdale published his account of the Suttonian method.—*Withdrew.*

Adjourned.

LUNÆ

LUNÆ 5° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 29. *Dr.* FRAMPTON, *Fellow of the Royal College of Physicians, and Physician to the London Hospital, called in and examined.*

Q. Is the practice of vaccine inoculation carried on in the hospital to which you are physician, or are you acquainted with any circumstances relative to it?

A. The practice of vaccine inoculation is not carried on in the hospital to which I am physician. I have had some few opportunities of seeing somewhat of that practice.

Q. What is your opinion of it?

A. I think it a perfectly mild and safe disease, and I believe it effectual in preventing the attack of small-pox. I have inoculated with vaccine infection three of my own children—one of them two years and a half ago, whom I have since inoculated three several times with small-pox matter without effect.

Q. Whom do you consider as the original discoverer of the vaccine inoculation?

A. I consider Dr. Jenner as the original proposer of vaccine inoculation.

Q. Do

Q. Do you imagine if Dr. Jenner had kept it a secret to himself, that he would have derived any great emolument therefrom ?

A. I do not imagine he could long have kept it entirely a secret.

Q. Do you not think that he might have reaped much greater emolument from this discovery by not making it public in the manner which he has done ?

A. Undoubtedly much greater, because I think it possible that he might, by a less honourable line of conduct, have secured to himself a reputation of peculiar knowledge and extraordinary skill in the practice of vaccine inoculation.

Q. Have you seen any instances of the spurious sort of cow-pox ?

A. I have barely seen one instance of such a pustule on the arm.

Q. Was that pustule easily discernible from the true pustule ?

A. Very easily.

Q. Do you know any instances in which persons having gone through the vaccine disease have had the small-pox ?

A. None.

Q. Do you think that the vaccine inoculation introduces or excites any other disease ?

A. I have no reason whatever to think so.

Q. Is the vaccine disease in your opinion contagious ?

A. It

A. It is not.

Q. Is it a much milder disease than the inoculated small-pox in the best manner?

A. In all the instances I have seen it has been so extremely mild as scarcely to deserve the name of a disease.—*Withdrew.*

No. 30. *Dr.* BAILLIE, *Fellow of the Royal College of Physicians, and lately Physician of St. George's Hospital, called in and examined.*

Q. What is your opinion of the practice of vaccine inoculation?

A. I think that the cow-pox forms an extremely mild disease, and that when a patient has properly undergone the cow-pox, he is perfectly secure from the future infection of the small-pox.

Q. Do you think that Dr. Jenner might have reaped more emolument from this discovery by not making it so public?

A. It may be difficult, in the present improved state of society and of physic, to keep any discovery of this sort altogether a secret; but if Dr. Jenner had not chosen openly and honourably to have explained to the public all that he knew upon the subject, he might, considering the difficulties that attend the determination of the most proper time for taking the cow-pox matter for inoculation, and the exact appearance of the fluid

in

in its most proper state, have acquired a considerable fortune.

Q. Have you ever had any cases of the vaccine inoculation under your own immediate inspection?

A. As a general physician I have had little opportunity of seeing many cases of cow-pox, because it forms an extremely mild disease. I have seen, however, a few cases in order to become thoroughly acquainted with the appearances, and the progress of the cow-pox pustule.

Q. Were any of those cases of the spurious sort?

A. I believe not.

Q. Have you ever heard of any cases of the true vaccine inoculation having proved fatal?

A. I have heard of one instance two or three years ago, which was said to have happened at the Small-pox Hospital, but do not know any thing of the particulars; and the Committee are probably in full possession of the case from the evidence of Dr. Woodville.

Q. What is your opinion of the benefits arising from this new mode of inoculation?

A. I believe the benefits to be so great, that in my opinion *it is the most important discovery that has ever been made in medicine*, because the disease may be given safely in the earliest periods of infancy, in the weakest constitutions, and under peculiar circumstances in which the small-pox is always very hazardous, as for example, during

pregnancy,

pregnancy, because it is not communicable by effluvia like the small-pox; so that if the cow-pox were to be adopted universally it would remove all the evils arising out of the small-pox, and ultimately banish the small-pox from the class of diseases.

Q. Have you ever seen an instance in which the vaccine inoculation has introduced or excited any disease?

A. I have seen no instance myself, nor have I ever heard of any.

Q. Have you ever known any instance in which the inoculated small-pox has introduced or excited any disease?

A. I have known instances of the absorbent glands becoming enlarged and *scrofulous soon after a patient had undergone the small-pox:* these instances happen sufficiently often to make a general impression upon the minds of medical men, that the constitution is sometimes excited to form scrofula, in consequence of the irritation previously undergone during the small-pox.—*Withdrew.*

No. 31. *Dr.* CROFT *called in and examined.*

Q. Are you acquainted with the vaccine inoculation? and what is your opinion of it?

A. I have attended very particularly to it since its first introduction in this town by Dr. Jenner, and

and have had three of my own children inoculated with it, and uniformly recommended it to my patients.

Q. Do you consider it as possessing any decided advantages over the small-pox inoculation in the early periods of infancy?

A. I am in the general habit of recommending infants to be inoculated at the end of the month, and should never dare to recommend the inoculation of the small-pox earlier than at two years old, except under very particular circumstances.

Q. Was there not a child belonging to a nobleman to whom you were called in on account of a severe indisposition said to arise from its having undergone the vaccine inoculation?

A. I suppose you allude to a child of Lord Fortescue. That child had a very considerable erysipelatous inflammation on its head and face, similar to what children are liable to who have discharges from behind their ears; and at that time and now I consider it to have been produced *from the child's ears being neglected to be washed from the time of inoculation.*

Q. Had this child any inflammation *previous* to its inoculation with the vaccine matter?

A. I understand it had a *slight discharge from behind one ear,* and that in consequence of the child being inoculated its ears were ordered *not to be washed for fear of giving it cold.*

Q. Is it then your opinion that the vaccine inoculation was not the cause of this child's illness?

A. Certainly it is; as I do not recollect ever to have seen similar circumstances under vaccine inoculation, or that that child's arm in the least deviated from the usual appearance, but had gone through its proper progress.

Q. Do you know any circumstances relating to the inoculation of a child of Sir George Dallas?

A. I recollect a child of Sir George Dallas being inoculated with the vaccine disease by Dr. Jenner. I believe in five days from the time it was inoculated it broke out with the small-pox, and went through the disease very favourably; and Sir George has since had an infant of one month old inoculated with the vaccine disease.

Q. Had the first child the vaccine disease also?

A. I was not called to the child till about the third or fourth day of the eruption of the small-pox, when the arm inoculated appeared in the state one could naturally expect to find it from the fifth to the seventh day, but cannot take upon myself to say, whether the child was constitutionally affected with the vaccine disease or not.

Q. Do you imagine that the inoculation of this child with the vaccine matter might have some effect in mitigating the violence of the natural small-pox?

A. I certainly thought it had, as the eruption

was not equal to what might have been expected from the violence of small-pox fever.

Q. Have you met with any instance of the spurious sort of cow-pox?

A. I have seen children whose arms have been *considerably inflamed* from being inoculated with matter taken from under the vaccine scab, *as late as the fourteenth day*, but do not know why this should be called a spurious sort of cow-pox.

Q. Are you of opinion that a constitutional affection is essential to the vaccine disease, or that it consists in the pustule alone?

A. As infants only a few days old go through vaccine inoculation with their constitutions very slightly deranged, it is impossible for me to say how slight a constitutional affection is essential to their future security against the small-pox.

Q. Would you venture to pronounce a patient safe from the small-pox, in whom you had not been able to observe any constitutional affection whatever?

A. Provided the arm had gone through the usual progress I certainly should.

Q. What is your general opinion with respect to the benefits which may be derived from this discovery of Dr. Jenner?

A. Should the vaccine inoculation be generally introduced, I think it may be productive of greater blessings to mankind than any other discovery that

was ever made in medicine, as I doubt not but it will ultimately cause the small-pox to be remembered only by name.—*Withdrew.*

No. 32. *Dr.* NELSON, *of the Vaccine Institution, called in and examined.*

Q. What number of patients have been inoculated in the Vaccine Institution?

A. I believe about 700.

Q. What has been the success of inoculation in that Hospital?

A. The patients that have been inoculated in that Institution have universally done well, and none of them have since had the small-pox, though a considerable number of them have been inoculated with variolous matter, and exposed in a variety of ways to the contagion of small-pox.

Q. Have you seen any instances of a spurious or imperfect sort of cow-pox?

A. I have not.

Q. Are you of opinion that the essence of the vaccine disorder consists in the pustule alone, or that constitutional affection is necessary in addition?

A. I believe that a constitutional affection is essentially necessary, but that in many cases it is so slight as to escape notice.

Q. Within

Q. Within what time do you think it necessary to take the matter with which you inoculate?

A. It is certainly best to take the matter before the eleventh day. I have seen it produce the true disease when taken as late as the thirteenth day, but it is more sure of exciting the disease when taken *at an earlier period.*

Q. Has not the practice of that Institution varied since the beginning as to the time of taking the matter for inoculation?

A. Matter has been taken at various times of the disease with a view of ascertaining how soon, and at how late a period, it was capable of producing the disease.

Q. Have you seen many instances where the inoculation has failed of producing the disorder?

A. I recollect about three cases where the patients have been repeatedly inoculated without any appearance of a true vesicle. I believe these three patients were afterwards inoculated with small-pox without effect.

Q. Do you know any instances in which the small-pox has broken out upon patients under vaccine inoculation?

A. I have seen several cases of small-pox going on at the same time with the vaccine inoculation.

Q. In your opinion had the vaccine inoculation in those cases any effect upon the small-pox?

A. I cannot say that it had; they were favourable cases of small-pox.

 Q. Has

Q. Has the vaccine inoculation any tendency to excite or produce any humours or disorders in the constitution?

A. I have never observed any other disease excited by the vaccine inoculation. On the contrary, the health of sickly children is in general much mended by the inoculation.—*Withdrew.*

Adjourned.

MARTIS 6° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 33. *Mr.* FULLER *called in and examined.*

Q. Are you conversant in the vaccine inoculation? or have you practised it?

A. No: I have not practised it, but I know the disease when I see it.

Q. Are you acquainted with any cases which militate against the operation?

A. I know two children who had the small-pox, after having been inoculated with the cow-pox.

Q. Was you present, or do you know that they were inoculated with the vaccine matter in a proper way?

A. My

A. My information was from Dr. Thornton *, who did inoculate those children, and he told me they had gone through the disease in a proper way; he having inoculated 2000 persons with vaccine matter, and he took upon himself to say they were secure. I do not know their names, but they were the children of Lord Somerville's coachman.

Q. Do you know of any other instance?

A. I do not know of any other decided instance of that kind; but I know of one who has had the small-pox after having had the cow-pox in the natural way, having got it from the cow. Ann Jackson, some years ago, caught the cow-pox from milking a cow, and had a great number of pustules on her arms and breast. A year and a half ago she had the small-pox in the natural way, in a very violent degree. She informed me of this fact, and I saw the marks.

Q. Did you see any marks on the arms of the children of Lord Somerville's coachman?

A. I did not.

Q. Have you any knowledge of a spurious sort of cow-pox?

A. No; I did not know there was more than one disease that was liable to be called so to which cows are subject.

* By reading Dr. Thornton's evidence, the whole of this cow-pox inoculation is put in a proper light—it turns out to be a *spurious case.*

Q. Are you acquainted with any species of the cow-pox which does not get into the constitution and prevent the contagion of the small-pox ?

A. I am not.

Q. Are you aware of any material difference in the success of the vaccine inoculation depending upon the period of the disease at which the matter has been taken for inoculation ?

A. Not having practised the inoculation, I am not acquainted with the period at which the matter ought to be taken.

Q. Did you attend the children of Lord Somerville's servant during the time they were ill with the small-pox or cow-pox ?

A. I saw them only once during the time they had the small-pox on them, and have no doubt it was the small-pox in the natural way.—*Withdrew.*

No. 34. *Mr.* LONG, *Surgeon to St. Bartholomew's Hospital, called in and examined.*

Q. Are you conversant with the vaccine inoculation ?

A. But very little ; having inoculated only four patients, and seen five more.

Q. Are you acquainted with any cases which militate against its operation ?

A. No, I am not ; and all the cases I mentioned succeeded.—*Withdrew.*

Sir

Sir GEORGE BAKER, *one his Majesty's Physicians, called in and examined.* No. 35.

Q. Do you recollect having had any correspondence with the Rev. Herman Drew, upon the subject of the cow-pox? how long since? and what was the result?

A. I do very well recollect having a correspondence with Mr. Herman Drew; I think about twenty-five years ago. The result was, that there was an opinion prevailing in his neighbourhood, that dairy-maids who happened to get what is called the cow-pox, were by that means free from the accidental infection of the small-pox.

Q. Was there any mention of communicating the infection *by inoculation* with the vaccine matter from one human being to another?

A. I do recollect that I *wished* an attempt to be made to inoculate human subjects with that matter; *but I do not recollect that any such attempt was actually made.* Very unfortunately, the papers relating to this subject were burnt by accident.

Q. During your practice, do you know of any constitutional disease arising from the vaccine inoculation?

A. None.

Q. Does the small-pox ever excite or create any constitutional disease?

A. I know of no such thing.

Q. Have you ever known of the vaccine inoculation being fatal?

A. I know of no fatality attending the cow-pox. I believe many mistakes have arisen from the ignorance and carelessness of persons who have undertaken the business, for which they have not been competent.—*Withdrew.*

No. 36. *Dr.* PEARSON *called in and examined*.*

Q. Are you conversant with the vaccine inoculation?

A. Yes; I have been acquainted with the practice since January 1799; and I think it but justice to Dr. Jenner to state, that I am acquainted with the practice of inoculation of persons for the small-pox, who on good evidence have been said to have gone through the cow-pox since June or July 1798—the result of which was, that they could not receive the small-pox infection.

Q. Was it from the communications of Dr. Jenner, or from any other source, that you derived your knowledge of the vaccine inoculation?

A. In the first instance from Dr. Jenner; afterwards, I got information from other sources.

[*Several letters delivered in.*]

* See Appendix: observations on Dr. Pearson's evidence, comprehending the subsequent examination of Dr. Pearson.

Q. Do

Q. Do you imagine that the information contained in these letters arose from Dr. Jenner's publication of his discovery, or from a previous knowledge of vaccine inoculation?

A. I imagine they were independent of each other.

Q. Did you ever hear that Dr. Jenner had communicated his discovery to Mr. John Hunter previous to this correspondence? and is it not known, that in his lectures some years before his death he mentioned it publicly?

A. Not the practice of inoculation; but that Dr. Hunter had acquainted him, that persons who had had the cow-pox could not take the small-pox, and that nobody had been known to die of the cow-pox.

Q. Had you any other communication with the Rev. Herman Drew, besides the letter * delivered in upon the subject of vaccine inoculation?

A. None that I think relates to that question.

Q. Does the Rev. Herman Drew lay claim to the discovery of *inoculating with the vaccine matter from one human being to another?*

A. NO; *that is exclusively Dr. Jenner's.*

Q. Do you know when the facts stated in the correspondence which you delivered in to the Committee actually took place?

* For the letters of the Rev. H. Drew see Appendix: it will be seen that they amount to nothing satisfactory or decisive.

A. Only

A. Only that they took place *in all probability* earlier than the year 1798.

Q. On what do you ground that opinion?

A. Because immediately upon the publication of Dr. Jenner's work in 1798, I wrote to the gentlemen who furnished that information, namely, Mr. Herman Drew, Dr. Pulteney, Mr. Dollins, Mr. Dour of Bridport, and they immediately communicated their cases of vaccine inoculation, without *appearing* to be acquainted with Dr. Jenner's work.

Q. Have you reason to think that Dr. Jenner, previous to the publication of his first work on vaccine inoculation, was at all acquainted with the facts contained in the correspondence delivered in?

A. I have said I apprehend the parties all made their inoculations independent of eath other.—*Withdrew.*

No. 37. *Lord* Rous *called in and examined.*

Q. Can your Lordship give any information with respect to the practice of vaccine inoculation?

A. About three years ago the small-pox broke out in the incorporated hundred where I reside, in the county of Suffolk, and it was thought necessary by the guardians of the poor to order a general small-pox inoculation; it proved very fatal in my small village—*seven were buried in one week, who*

who had been inoculated with small pox; and of those who *recovered* in that and the adjoining parishes, many suffered from *scrofulous sores and swelled glands* for several weeks after inoculation had subsided. These circumstances induced me to use my utmost endeavour to promote the vaccine inoculation. I had one of my own children, then about four months old, inoculated, and finding considerable prejudice among the lower orders against the cow-pox, I performed the operation myself * on about thirty persons, after reasoning with them on the mildness and efficacy of the disease: many thousands have since been inoculated in Suffolk with uniform success. I inoculated my youngest child myself last year, at four months old, and some few others since. Dr. Girdlestone of Yarmouth, Dr. William Hamilton of Ipswich, and a great many surgeons in Suffolk, have assured me that they have exposed persons to the natural and inoculated small-pox, who had previously gone through the cow-pox, and that the small-pox could not be communicated to them in any one instance, either by effluvia or inoculation.—*Withdrew.* Adjourned.

* The zeal and activity of his Royal Highness the Duke of Clarence, Earl of Berkeley, and Lord Rous, cannot be too warmly applauded, or too strenuously recommended to the attention of other noblemen and gentlemen.

MERCURII 7° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 38. *Dr.* THORNTON *called in and examined.*

Q. Did you inoculate with vaccine matter two children belonging to Lord Somerville's coachman?

A. I inoculated them three years ago with what I *supposed* to be the true vaccine matter, and particularly requested the mother to bring these two children for my examination that day week.

Q. What followed?

A. Instead of the woman's bringing the children, as directed, she neglected it. The matter from which the inoculation was performed at that early period of vaccine inoculation was taken *indiscriminately* as long as there appeared a pustule from whence matter could be procured; I being at that time unacquainted that the cow-pox *ceased to produce the disease after a certain period, which was known to Dr. Jenner, published by him, and forms one of the important discoveries respecting this new practice.* The reason of my being unacquainted with this circumstance was a resolution I had formed of being directed by no practice from others, in order to ascertain from actual, unbiassed experience, whether vaccine inoculation did actually

actually secure patients from the small-pox. Being in the north at the house of the Earl of Lonsdale, under whose roof I inoculated upwards of 1000 persons, I completely satisfied myself and all the medical practitioners in that part of England, that the cow-pox was a mild disease hardly deserving that appellation, never attended with pustules, never disfiguring the person, never producing blindness, never rendering fatal, or exciting or increasing any other disease whatever—equally safe, whether during the period of pregnancy, or the earliest infancy, or extreme old age. It was at this period that I received a letter from London, informing me, that two of my patients (namely, the above children) who had been inoculated the preceding year, were at that time actually labouring under the small-pox. There could be no doubt but that the disease was actually the small-pox. Lord Somerville and Mr. Fuller, upon my return from the north, both requested information respecting this extraordinary fact, which made considerable noise. I recollect mentioning to Mr. Fuller, that if I *had pronounced these children secure*, whose cases at that time escaped my memory, that these cases I would pledge my life had actually had the cow-pox, and were in consequence secure, having ascertained this fact in more than 2000 instances. Shortly after I waited upon Mrs. Gregory (the mother of these children), and I found that she had neglected coming to the Mary-

Mary-le-bone Dispensary as directed; that upon examination of the arms of these children *there were no scars*, which is a *criterion* that these children *had not had the true cow-pox*, therefore I suspected the pustule to be of the spurious sort. I was confirmed in this belief by the mother's declaring that the pustules had advanced more *rapidly than in the genuine cow-pox*, and that *matter* had been produced by these pustules. The fever said to have been produced in the one case evidently arose *from the teeth*. This case appears to me important, as exhibiting a proof that all other cases adduced against the general principle of security from vaccine inoculation, must arise from the ignorance of the inoculator as to the period when to take the matter; and his assertion that any patient has received the true vaccine disease, must originate, as in myself, from *not being able properly to discriminate the true from the spurious disease*; a thing which now appears to me the easiest possible, *from the criterion so ably given by Dr. Jenner, who has completely elucidated a subject before involved in much obscurity*. I mentioned to Mr. Fuller that if I had pronounced the children secure, I had no doubt that it was so. Mr. Fuller's evidence goes to say, I *did* pronounce the child secure, which was *not the case*, owing to the mother's neglecting my order to attend; for otherwise, even at that early period, I am persuaded I should have suspected these cases not

to have been genuine ones of the cow-pox, and upon re-inoculating them I should have produced, as I have seen in many other instances, the true cow-pox, had the matter been taken *at an early period*, as was my practice at that time, although not always; and hence a few other cases of the spurious cow-pox have arisen to me, and I have known several like cases in the early practitioners of vaccine inoculation.

Q. Is it not necessary, by way of ascertaining the effect of inoculation, to see the arm in less than a week from that time?

A. My practice at the Mary-le-bone Dispensary has been to inoculate every Wednesday, to desire those who were inoculated to attend the following Wednesday, by which time I could clearly ascertain whether the inoculation had succeeded; and for the most part I had patients to inoculate from on those days, taking the matter which *was a week old*, and which never failed to produce *the true cow-pox*. In the instances aforementioned of the two children, I have great reason to believe that it was the *fourteenth day or later*; and hence this case of spurious cow-pox, which, as I observed before, has been with me most unfrequent, and at the present period I am bold to assert *never does occur*.

Q. When did you first see these children subsequent to the inoculation?

A. It

A. It was more than a twelvemonth.

Q. Do you know of any inflammation which took place in the arm?

A. The mother describes the inflammation as *rapid and extensive*, as we sometimes find when inoculation produces only a festering sore, and not the true cow-pox, which has a *regular areola*, surrounding the pustule; in which the spurious cow-pox, as far as my observation goes, seems to be rather deficient, and generally to want this criterion altogether. The festering sore above remarked has arisen to me when the genuine cow-pox matter has been placed on a lancet *previously corroded*, and in consequence lost its specific property of producing the genuine cow-pox: this is another source of spurious cases that may be adduced against a discovery, the most important that has ever been made for meliorating the condition of humanity. The above cases might possibly have arisen from this source, as this circumstance was at that period unknown to me. I am certain it was the cow-pox matter that I had then employed, being only two removes from the cow; and in the first instance producing the genuine disease, which was proved to be a security against the small-pox.

Q. Would not any considerable pustule leave a scar upon the part affected?

A. I refer to the case alluded to above, there being no scar perceptible; hence a certainty, in my opinion,

opinion, that the pustule which appeared was not a cow-pox pustule. In general I should pronounce that no scar similar to the one always produced by the true cow-pox pustule is seen to arise from the spurious pustule; after a year, the scar that might arise from a spurious pustule, would in all probability be nearly or altogether obliterated.

Q. Did you inoculate any other patients with the same matter with which these children were inoculated?

A. A week before I inoculated some patients from this same matter, who went through the disease in a regular way: one in particular has been inoculated by me with small-pox matter at least a dozen times, and during these three years, since the inoculation, has even slept with a person who died of the natural small-pox, and was always exposed, but could not take the small-pox infection in either way. Another case of spurious disease, inoculated at the same time with the same matter, having produced the spurious case above, I recollect to have occurred.—*Withdrew.*

Mr. John Addington *called in and examined.* No. 39.

Q. Are you acquainted with the vaccine inoculation? and have you practised it?

A. I am acquainted with it, and have practised it since the spring of the year 1799 with uniform success.

 Q. Have

Q. Have you kept a journal of your practice?

A. I have kept an exact register of cases to the number of eighty-one, with all their particulars.

Q. Did you inoculate, or expose to the infection of variolous matter, any of those patients whom you inoculated with the cow-pox?

A. I have inoculated with variolous matter, and exposed to the infection of natural small-pox in its most violent forms, and in every stage, by every method I could devise, above one third of the patients who have passed under my observation, and in no case was the infection of small-pox communicated.

Q. Have you not made it your particular study to distinguish the true from the spurious sort of this disorder? and from whence does the difference arise?

A. Having been particularly careful in the choice of the matter employed in vaccine inoculation, I have not found in my own practice any case of spurious small-pox; but I have seen many cases of spurious cow-pox, and therefore consider that the objections, if any, which are thought to arise against the vaccine inoculation from this source, apply equally against the inoculation of small-pox.

Q. Can you state from what source the spurious cases of cow-pox arose?

A. In some instances I believe from the matter being

being taken at *too late a period of the disease*; in others from changes which it had undergone during its preservation, and in others from the modes of inoculation employed.

Q. Can you state any particular cases?

A. I have not them with me, but will deliver them in.—*Withdrew.*

LUNÆ 12° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.* No. 40.

Dr. ROWLEY *called in and examined*.*

Q. Can you give the Committee any information relative to the vaccine inoculation and its effects?

A. I was down at Oxford last July, and was informed by Professor Wall, and other professors, that there were several children in Oxford who had received the small-pox after having been inoculated with the cow-pox. Two of these patients I immediately visited with my colleague at the Mary-le-bone Dispensary, Dr. Hooper. We saw

* See Appendix: Observations on Dr. Rowley's evidence.

two children (I do not know their names), one in the confluent, the other in the distinct small-pox, in a state of suppuration. The father of the children informed us, that Dr. Williams and a Mr. Jenner had inoculated these children in the preceding autumn: the father supposed his children secure from the small-pox infection; but on permitting them to go where the small-pox existed in its natural state they both received the infection. My opinion was asked what I thought of them? I predicted immediately that one would die in the confluent small-pox; that the other would recover who had the distinct sort. A few days after one of the children died, and the other recovered. I have likewise seen a great many inoculated with cow-pox, in which the disorder appeared extremely mild, and terminated without any symptoms of danger whatever.

Q. Had you ever an opportunity of mentioning this circumstance to Dr. Wall afterwards?

A. No; I staid there but a few hours.

Q. Did you examine the children's arms, where the cow-pox inoculation was said to have taken place?

A. I did not.

Q. Can you then take upon yourself *to affirm* that they had undergone the *proper inoculation* for that disorder?

A. By no other means than by *the man's relation*, and a supposition that the gentlemen, who

were

were men of character, had attended the children through the cow-pox.

Q. From whom did you receive the information of their being inoculated by those gentlemen?

A. From the father of the children.

Q. What is your opinion of the cow-pox inoculation and its effects?

A. I have drawn up a comparative view of that disorder with the small-pox, which I will read and lay before the Committee.

[*Paper delivered in.*]

Q. Have you seen any instances of the *spurious* cow-pox?

A. I *have not.*

Q. Why then do you think it difficult to distinguish the true from the spurious sort?

A. Because gentlemen who are conversant in the cow-pox inoculation, have given me that intelligence; and have given it always as a reason for small-pox infection being received after the supposed cow-pox inoculation.

Q. Have those who are conversant in the cow-pox inoculation ever told you that they themselves found a difficulty in distinguishing the two sorts?

A. I do not recollect that they have; but in the beginning of the cow-pox inoculation I have *heard* such assertions.

Q. Do you not believe that the experience which has already been given of this disorder, does

enable skilful practitioners to discern, with certainty, the true from the spurious sort?

A. I really do not know.

Q. Do you know any instances where disorders or humours, supposed to have been excited or founded by vaccine inoculation, have been attended with the various disastrous circumstances you have mentioned in your paper delivered in?

A. I have seen ulcers succeed in the beginning of the inoculation, but *that has been entirely obviated by the subsequent practice.*

Q. Do you know by what change in the practice these disastrous circumstances have been prevented?

A. I do not.

Q. Did you never see those symptoms arise after the small-pox inoculation?

A. Not the same; but some of a *worse* nature, which have appeared in different parts, and at last *proved fatal.*

Q. Do you know that the number of deaths by the small-pox within the bills of mortality, have considerably increased since the practice of small-pox inoculation?

A. No, I do not: I have not adverted to it.

Q. Is not the confluent small-pox sometimes produced by inoculation?

A. Very rarely, and then from the ignorance of the inoculator.—*Withdrew.*

Mr.

Mr. James Simpson, *of Lyme Street, called in and examined.* No. 41.

Q. Are you acquainted with the vaccine inoculation? and what is your opinion of its effects?

A. I have practised it, and have inoculated between fifty and sixty patients, and in no one case have any symptoms occurred injurious to the health or constitution of the patients; and in every instance I have reason to believe them completely secure from the small-pox infection. In one particular instance I inoculated a patient, a child of nine months old, who was covered with a crust, commonly called the *crusta lactea,* which generally covers the body from head to foot, and had resisted the usual remedies for that disease; on the tenth day after the infection it began to disappear, and on the twelfth was wholly gone; during which time not a particle of medicine was given to it, and it has continued in perfect health ever since.—*Withdrew.* Adjourned.

MARTIS 13° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 42. *Dr.* LIND, *Physician at Haslar Hospital, called in and examined.*

Q. Have you visited a marine of the name of Clark, in Haslar Hospital, who is stated to have received the infection of small-pox, after having been inoculated with vaccine matter?

A. I have.

Q. Is it your opinion that the disorder under which he labours is the genuine small-pox?

A. I am of opinion it is: but experiments are making with a view to ascertain it more fully, by inoculating persons with the matter from this marine, who had before had the small-pox: as it is considered that if any eruption follows this inoculation, it must mark the disorder to be the chicken-pox, or something different from the common small-pox.

Q. Are all the medical persons who have visited this marine, of the same decided opinion with respect to the nature of this disorder with yourself?

A. They were at first very much decided in their opinions upon this matter; but from the conti-

continuance of the disorder, and the regularity of its progress, they pretty generally considered it the small-pox.—*Withdrew.*

His Royal Highness the Duke of CLARENCE *examined.* No. 43.

Q. The Committee have requested the honour of your Royal Highness's attendance, as they understand you have some facts to communicate with respect to the vaccine inoculation.

A. There are two facts which have come under my own knowledge since the month of May 1798, when I first began this inoculation. The first was upon my inoculating with vaccine matter the children of my servants, who never had the small-pox. One of the children of my gardener was inoculated among the rest. Mr. Knight was the surgeon who inoculated these children. Upon the eight and fortieth hour after these children had been inoculated, Mr. Knight went down to Bushy to see the state of the arms of the children; he was satisfied with the arms of the whole, but thought that the arm of the child of the gardener was not so perfectly clear to his eye as that of the rest: the mother of the child was then asked if any thing was the matter with the child. She said that the child appeared on that morning to have a slight cold, and a small degree of cough. Mr.

Nickson, the apothecary of Hampton, who attended my family, and who had never before seen this kind of inoculation, and was therefore more particularly attentive to the proceeding, was requested by Mr. Knight to attend this child. Either in the course of that or the following day the chicken-pox appeared upon this child, and as the chicken-pox went off the cow-pox advanced in its proper state, and the child went through it as the others had done; since which time to the present hour this inoculation has been continued in my own family—and leads me to the second instance I have to relate. In the month of May 1798, when this inoculation began, I offered to inoculate all my adult servants who, to their knowledge, had not had the small-pox: the reason that I proposed it to them was, that they had seen many instances of this vaccine inoculation on the recruits of the Coldstream regiment of Guards, who were repeatedly brought to my apartments at St. James's to shew the different appearances of the arm. Amongst my servants was a postilion boy of the name of Johnson, who was particularly advised by the coachman to be inoculated with vaccine matter; the boy positively refused it. About eighteen months afterwards this lad Johnson caught the natural small-pox; it was a confluent case, and very virulent, attended with inflammatory fever: his face was one complete mass of matter, and it was absolutely requisite that he should have a nurse.

nurse. The wife of one of my grooms, whose child had been inoculated with the vaccine eighteen months before, volunteered nursing this boy; her child was constantly backwards and forwards in the room with Johnson, and never was the worse for it. The patient recovered. There were two children of two other servants who had been inoculated with the vaccine matter, six months previous to Johnson's being ill, who could not, from the construction of the stables, be prevented from going into the room where the patient lay: these children never suffered in any degree. It is proper to add, that the case of Johnson was so peculiarly bad, that Mr. Nickson did not think it proper to visit him, till he had paid all his other visits, for fear of conveying the infection. The new stables at Bushy not being at that time completed so as to be inhabited, the situation for infection can be easily imagined when I add, that all the victuals were obliged to be drest in the rooms in which the different servants slept, there being no kitchen at that time. I can only say, that *previous to the inoculation of the vaccine pox at Bushy and its neighbourhood, there used to be frequent and lamentable instances of death from small-pox, and amongst the children of the different regiments of Light Dragoons,* quartered in the stables of the Palace, so that the inhabitants of the Palace were under very considerable alarm, and expressed to the commanding officers at these barracks,

barracks, an apprehension of the general infection of the small-pox amongst their children. I cannot positively say that a letter was written to the Commander in Chief from the inhabitants; but there was an order given that no soldier's family should be admitted into those barracks who had not been inoculated with the small-pox: still at times there were apprehensions of the small-pox breaking out in the barracks, but since last Christmas twelvemonth the vaccine inoculation has been introduced into those barracks, and I have never since heard of any alarm from the inhabitants of the Palace. This vaccine inoculation at present continues to be used in the neighbourhood of Hampton and Bushy; and my own servants, both domestic and of my farm, have, since the case of Johnson, always requested that their children might be inoculated with vaccine matter.—*Withdrew.*

No. 44. *Dr.* LIND *again called in and examined.*

Q. Was the experiment you have mentioned made by your advice?

A. No.

Q. Was any experiment made of inoculating with the same matter any person who had not had the small-pox?

A. I cannot speak with accuracy as to that point, the patient not being under my charge.

Q. In

Q. In what characteristic circumstances was this disorder supposed to differ from the small-pox?

A. The matter was taken from a patient in whom the eruption had terminated between the sixth and seventh day; the circumscribed appearance of the inoculated part had not any pustules round it, as generally happens in the small-pox; and the duration of the pustule terminated about the tenth day, as far as I can recollect.

Q. Does not a second inoculation of small-pox matter sometimes produce eruption?

A. It sometimes produces eruption, but that eruption is in its progress much shorter, and not so strongly marked as the original, and I consider it as a rare occurrence.

Q. Is it difficult to distinguish the chicken-pox from the small-pox?

A. I consider it *very difficult*; and in Clarke's case I had placed the criterion upon the duration of the eruption, which, by having continued to the ninth day, I consider to have extended beyond any period of the chicken-pox with which I had met; unless where the disorder was protracted by new pustules appearing in the course of it.

Q. Are there any other characteristic circumstances by which you distinguish chicken-pox from small-pox, except the duration of the eruption?

A. In general I have found that the pustules contain matter earlier in the chicken-pox than in the

the small-pox, and that the general progress of the disorder is not so regular; some pustules drying earlier than others, and often in the extremities before the face: but these symptoms were not so strongly marked in Clarke's case as in my opinion to ascertain the difference.

Q. Were any other persons inoculated with the same small-pox matter with which Clarke was inoculated?

A. I saw two children who were inoculated with matter from the same patient; one was inoculated the day prior to Clarke, and had eruptions similar to Clarke's, as I understood from Mr. Goldson, a surgeon at Portsea; and on the day I saw him, the eruptions appeared to have remained out nearly the same time with Clarke's—they were then turned. The only difference I could trace in the circumstances of that child was, that some pustules upon one thigh turned before those on the face. The other child, I understood from the same gentleman, had not the eruptions above five or six days, and the arm dried proportionably early.

Q. How does it appear that Clarke ever had the vaccine disorder?

A. From the testimony of Mr. Rickman, the surgeon of marines, who inoculated him.

Q. Do you know whether Mr. Rickman was led by any particular circumstances which he had observed in the vaccine inoculation of Clarke, to inoculate him with the small-pox? or is it his general

neral custom to inoculate all those with small-pox on their return to England, who have gone through the vaccine disorder under his own care?

A. I believe he was not led by any particular circumstances, and understand it is his wish to inoculate whenever opportunity offers.

Q. Do you know whether Mr. Rickman has been *very conversant* in vaccine inoculation?

A. Clarke was inoculated by him *early*, being the *fourth or fifth patient whom he had ever inoculated with vaccine matter*, so far as I recollect from his conversation.

Q. When did you last see Mr. Goldson?

A. About a day or two ago.

Q. Did Mr. Goldson visit Clarke? and do you know what opinion he formed upon his disorder?

A. So far as I can recollect, he was inclined to consider it the small-pox, but wished to wait the result of the trials that were making.

Q. Is the chicken-pox easily distinguishable from the vaccine?

A. I consider the eruption as the mark of distinction.—*Withdrew.* Adjourned.

MERCURII 14° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 45. *Dr.* PEARSON* *again called in and examined*—and stated that Dr. Heberden authorized him to declare on the authority of Dr. Lind and Mr. Battiscombe of Windsor, that there is now living near Windsor a person (the son of an apothecary) who many years ago was inoculated by his father for the cow-pox.

Committee.—*Q.* Did Dr. Heberden inform you whether this inoculation was performed from *one human being to another*, or from the virus taken *immediately from the cow?*

A. That is a question I cannot answer.

Q. What further facts do you know affecting Dr. Jenner's claim of being the promulgator or inventor of vaccine inoculation?

A. I have admitted Dr. Jenner was the gentleman who first set on foot the inquiry into the advantages of vaccine inoculation; but I apprehend that the practice of vaccine inoculation which was first promulgated by Dr. Jenner has been established almost entirely by other practitioners, and that the new facts, or which I consider to be new, have been, in my opinion, disproved by subse-

* See Appendix: Observations on Dr. Pearson's evidence.

quent

quent observers; and that in consequence of these facts being disproved, together with the very extensive experience of other persons, we owe the present establishment of the vaccine inoculation.

Q. Will you inform the Committee who those practitioners and persons are to whom you refer?

A. The cow-pox inoculation, after Dr. Jenner's book was published in May or June 1798, was not practised after Dr. Jenner's seventh or eighth case, contained in his Work (the whole result of his experience), by any person that I know of till January 1799; neither Dr. Jenner, nor any person that I could find, being in possession of matter: but in January 1799, in consequence of a general inquiry which I had instituted immediately after Dr. Jenner's publication, information was given of the cow-pox disease breaking out in two of the cow stables near London; and from these sources Dr. Woodville and myself collected matter, by which, in the course of about three months, not fewer I think than 300 persons were inoculated for the cow-pox, in addition to the seven or eight cases of Dr. Jenner; which at that time was the whole stock of facts of inoculation before the public. Besides carrying on the inoculation ourselves in this manner, we disseminated the matter throughout the country, and in particular to Dr. Jenner himself. Within that time I also issued a printed letter, directed to upwards of

200 practitioners in different parts of the kingdom, containing thread impregnated with cow-pox matter. In the course of the practice we already learnt that young infants might be inoculated with safety, which I considered to be then a new fact; Dr. Jenner not having had the experience, and being apprehensive of serious consequence from inoculating them. The inoculated arms, so far from requiring caustic, or escharotic, or other topical applications, were sooner cured than in the inoculated small-pox. In the year 1799 Dr. Woodville's pamphlet appeared, containing the cases of upwards of 400 inoculated in that time; and in August 1799 I published a statement of inoculation, referring to many practitioners who had furnished me with reports of inoculation from matter I myself had furnished. Among them I beg leave to mention Mr. Kelson of Seven Oaks, Dr. Mitchel of Chatham, and Dr. Harrison's cases, as communicated to me by Sir Joseph Banks, and by that time I had also introduced it into the army through the hands of the surgeon-general Mr. Keate; and reports frequently came into my hands by his direction from the army. I had also by that time introduced the vaccine inoculation into many parts of the continent, and received reports of the successful practice of it, in particular from Dr. De Carro, of Vienna. In addition to these testimonies contained in the paper above alluded to, is the result

of my own practice in three parishes of poor people, inoculated under my superintendence; so that in that paper I believe it will be found that 2000 cases had by that time been afforded to the public by Dr. Woodville and myself, and the persons with whom I was in correspondence, and who are mentioned in the papers alluded to. By this time, too, some difficulties appear in a great measure to have been removed, owing to some facts stated to the public by Dr. Jenner—1st, In particular I published experiments of inoculation in the paper alluded to, of inoculating persons with the cow-pox who had undergone the small-pox, to shew that they could not take the cow-pox after the small-pox, contrary to Dr. Jenner. —2d, Experiments were also made to shew, that persons could not take the small-pox both locally and constitutionally, who had already gone through the cow-pox, also contrary to Dr. Jenner.—3d, Many persons had by this time made experiments to shew, that the cow-pox did *not originate in the grease of horses heels*, as Dr. Jenner had asserted. —These sentiments will be found in a printed statement, which I beg to deliver in as published by me. [*Statement delivered.*] In the spring of the year 1799, while the above stated evidence was collected, a second publication appeared from Dr. Jenner; adding nothing further to the cow-pox but a few cases of inoculation; but recommending caustic or escharotic applications to the inoculated

parts in the cow-pox, not found necessary by the medical persons alluded to in my evidence; I consider too that the distinctive characters of the cow-pox were understood better by some of the above alluded to persons' evidence than by Dr. Jenner. The vaccine inoculation was next considerably established by the Cow-pox Institution, of which I was one of the founders, commencing at the very close of the year 1799; which institution has been the principal office, I apprehend, for supplying the world in general, and the navy and army in particular, with vaccine matter; and where a regular register is kept of each of the cases inoculated, more fully and accurately than had been done any where before or since that time—where the authenticity of the cases, from the nature of the institution, is established in a manner that I apprehend will be considered as unexceptionable. This appears from a register of about 700 cases already entered, and open to the inspection of the subscribers. By this time, namely, the close of the year 1799, I think I can make it appear that about 4000 persons had been inoculated by Dr. Woodville, myself, and correspondents which can be referred to. I here close my evidence, as I consider it of very small importance comparatively, what was done by others after this time—all the facts that I recollect are in practice, being by this time established, as they have been since confirmed.

Q. Did

Q. Did you never hear of inoculation having been performed by Mr. Cline, with matter furnished by Dr. Jenner, *previous* to the time you began to practise vaccine inoculation?

A. I cannot recollect distinctly.

Q. Were not the seven or eight cases of Dr. Jenner, alluded to by you, cases of inoculation from one human being to another?

A. Some of them were, others were not.

Q. Had not many, or a large majority of your first cases, variolous-like eruptions?

A. The matter which had never been in the Small-pox Hospital, and which I myself took from the cows at the cow stables above alluded to, *scarcely ever* afforded any eruptions like the small-pox; but when I obtained matter to supply my correspondents in the country, not having enough of my own, but obtained it from the Small-pox Hospital, it frequently, according to the reports of my correspondents, and in a few cases where I practised it myself, did produce such eruptions.

Q. Was not the matter or virus which you distributed found great fault with on account of the eruptions it produced?

A. No, it was not found fault with; but many people were disappointed, as they expected that one of the advantages attending this inoculation was an exemption from eruptions.

Q. Did not these eruptions, which were produced by your matter, very much discourage prac-

titioners, and the public; and very much retard the progress of the new inoculation?

A. I should think it did not.

Q. Do you not know that there is a case in Dr. Jenner's first publication, of his having inoculated a child eleven months old?

A. I believe there is one case.

Q. Did not Dr. Woodville and yourself take vaccine matter in Gray's Inn Lane, for the purpose of commencing your experiments, from a person fully marked with the small-pox?

A. No such case is in my recollection.

Q. Have those facts stated by you to militate against Dr. Jenner's declared opinions remained uncontradicted by him? does he still maintain them? or has he publicly retracted them?

A. I think he has not retracted them.—*Withdrew.* Adjourned.

VENERIS 15° DIE APRILIS, 1802.

ADMIRAL BERKELEY *in the Chair.*

No. 46. *Dr.* HEBERDEN *called in and examined.*—The statement made yesterday by Dr. Pearson being read,

Dr.

Dr. Heberden observed that all he knew upon the subject was, about three years ago Dr. Lind, of Windsor, mentioned to him in conversation, that there was living near Windsor a young man, apprentice to an apothecary, who when a child was inoculated with vaccine matter by his father, an apothecary in the west of England. With respect to Mr. Battiscombe, he could not speak, having heard nothing of it.

Q. Do you know his name?

A. No, I do not.

Q. Did you understand it to have been an inoculation from the cow?

A. I am not certain whether it was from the cow, or from some person who had caught the disease.—*Withdrew.*

Mr. GARDNER *called in and examined.* No. 47.

Q. How long have you been acquainted with Dr. Jenner?

A. More than twenty-two years I have lived with him in habits of intimacy, during which period Dr. Jenner has been in the constant habit of communicating to me his medical opinions and discoveries. It was in the month of March 1780 that Dr. Jenner first informed me of the peculiar nature of the cow-pox as a sure preservation against the small-pox: he communicated to me at that

time the theory he had formed on the subject, declaring his full and perfect confidence that it might be continued in perpetuity by inoculation from one human being to another, in the same way that the small-pox was.—*Withdrew.*

No. 48. *Mr.* JORDAN, *Surgeon, called in and examined.*

Q. Have you been in the habit of inoculating with vaccine matter?

A. Yes, between two and three years; and I have inoculated between 1 and 200 persons.

Q. From whom did you receive the vaccine matter with which you inoculated?

A. From the apothecary at the Inoculation Hospital, where Dr. Woodville presided.

Q. Did you ever experience any mistake as to the quality of the matter sent to you as vaccine?

A. Matter was inserted by me, sent from thence, which proved to be variolous.

Q. What consequences ensued?

A. The patients did well; but not being sufficiently guarded against, I had every reason to think the cases would have proved fatal.

Q. Do you not think that these kind of mistakes might prejudice the vaccine treatment?

A. I have not the least doubt of it.

Q. Since that time, in what manner have you guarded against similar mistakes?

A. In

A. In general by arming the lancets from the patient myself.

Q. Was the time of taking the matter from these patients suggested by your own experience? or from the intimations received from Dr. Jenner? or his publications? or from any other person?

A. From Dr. Jenner's publications.

Q. Since you have followed those directions have you met with any accidents? or similar cases to those already mentioned in your practice?

A. No, quite the reverse.—*Withdrew.*

Mr. KEATE, *Surgeon-general to the Army, called in* No. 49. *and examined.*

Q. Dr. Pearson having stated that you were in possession of some manuscripts which might tend to throw some light on the discovery of the vaccine inoculation, you are desired to produce them.

A. You allude to the papers left by Mr. Robert Keate, my nephew, who received them from the authors, relative to a variety of matter on the subject of inoculation. I have made extracts of those parts which relate to cow-pox, which I will identify from the original, and lay before the Committee.

Q. Were the observations contained in those papers ever made public?

A. I do not know that they were.

Q. Have

Q. Have you been much conversant in vaccine inoculation? and what is your opinion of it?

A. I began to practise it in the year 1799, by means of Dr. Pearson, seeing a number of his patients; afterwards inoculating along with him the poor of several parishes; then introducing it into the army in all quarters of the globe; and lastly, giving my utmost assistance towards forming an Institution for the benefit of the poor in London.

Q. Have you not met with instances of a spurious sort of vaccine pustule?

A. I do not recollect that I have.

Q. Have you met with such varieties in the disease as to make it difficult to determine whether the patient has had the perfect disease?

A. No, I do not know that I have: there are but two kinds in my judgment; one local, and the other constitutional.

Q. Do you think that a constitutional affection is essentially necessary to the perfect disorder? or that it consists in the regular progress of the pustule only?

A. I think that is the true characteristic of the disease: my opinion is, that the constitution should be affected more or less.

Q. Would you venture to pronounce a patient safe from small-pox infection, in whom you had not been able to observe any constitutional affection whatever, though the progress of the local disease had been perfectly regular?

A. Yes;

A. Yes; I think that the local appearances may be so strong and evident as to warrant the conclusion on my part, that the constitutional symptoms might not be strong enough to be observed.

Q. Has your mode of practice varied since you first adopted this method?

A. No.

Q. Do you know of any other humours or disorders supposed to be excited by this mode of noculation?

A. No.

Q. Whom do you look upon as the discoverer of this mode of inoculation?

A. I consider Dr. Jenner to be the person to whom much merit is due, in publishing the cases of inoculation which have given rise to further investigation and improvement; but to whom to attribute the discovery I am unable to say.

Q. In those cases of Dr. Jenner is there not mention made of a child or children being inoculated?

A. I think that the youngest inoculated by Dr. Jenner, as far as I can recollect, was eleven months old.

Q. Did you ever hear of inoculation for the cow-pox before Dr. Jenner's publication?

A. I never did.

Q. Have you heard, since his publication, that any other person had promulgated, or practised, that mode of inoculation, previous to that time?

A. I

A. I have heard that others had inoculated for the cow-pox from the pustule on the cow previous to that time.

Q. Did you ever hear of this disorder having been inoculated from one human being to another, before Dr. Jenner's publication?

A. No.—*Withdrew.* Adjourned.

LUNÆ 26° DIE APRILIS, 1802.

Mr. BANKS *in the Chair.*

No. 50. *Mr.* ROBERT KEATE *called in and examined.*

[*Papers mentioned by Dr. Pearson and Mr. Keate laid upon the table.*]

Q. State what you know of these papers.

A. Mr. Nash, the son of the author, put them into my hands in the summer of 1800.

Q. Do you know at what time these papers were written?

A. I have understood after the year 1781.—*Withdrew.*

Mr.

Mr. THOMAS NASH *called in and examined.* No. 51.

Q. When did you deliver these papers to Mr. Keate?

A. In 1799 or 1800.

Q. Do you know at what time they were written?

A. Not for certain; but between the years 1781 and 1785—by the date 1781, in which year I was inoculated; and the year 1785, in which my father died.

Q. Do you know the hand-writing to be your father's?

A. This is the writing which was put into my hands as his; I have never seen my father write.

Q. When did you first see these papers?

A. In 1795 or 1796.

Q. By whom were they put in your hands?

A. By Mr. Battiscombe.

Q. What account did he give of these papers?

A. On the death of my father they were sent by my mother to her brother Mr. Battiscombe, a medical man; he returned them to me in 1795 or 1796, I fancy without ever having looked at them: they were sent with other manuscripts in the same hand-writing to be made what use I pleased of.

Q. Did you understand from him that he had communicated the contents to any person whatever?

A. I have every reason to believe he did not.

Q. Did

Q. Did you ever understand that you yourself were inoculated by your father with vaccine matter?

A. Not for certain; I have heard my mother say, that at the time of my inoculation my father was greatly taken up in the study of the cow-pox, and made many experiments, but of what nature she did not know.

Q. Did you ever hear her speak of any persons whom she knew to have been inoculated by your father with vaccine matter?

A. Certainly not: his experiments were entirely kept secret from her.

Q. How long have you kept those papers in your possession after returned?

A. They were returned to me in 1795 or 1796, and then I delivered them to Mr. Keate in 1799 or 1800.

Q. Did you ever make any part of them public? or communicate the contents to any person in the mean while?

A. Never, till they were given to Mr. Keate.

Q. Have you any reason to think that Dr. Jenner was acquainted with the author of these papers?

A. I have never heard that he was till this morning, and then from rumour.

Q. Who gave you this intelligence?

A. I heard it from Mr. R. Keate.—*Withdrew.*

Mr. ROBERT KEATE *again called in and examined.* No. 52.

Q. Have you any reason to think that Dr. Jenner was acquainted with the author of these papers?

A. I heard from Mr. Battiscombe yesterday, that he believed he heard Mr. Nash and his sister mention the name of Dr. Jenner, but was not at all certain that it was Dr. Jenner who applies to Parliament.—*Withdrew.*

END OF THE EXAMINATION.

SUPPLEMENT.

SUPPLEMENT.

STATEMENT

From the Yearly Bills of Mortality, delivered in by Dr. LETTSOM.

(See No. 28, p. 85.)

Years.	Total No. of Burials.	Ditto of Small-pox in all.	In 1000.	Years.	Total No. of Burials.	Ditto of Small-pox in all.	In 1000.
1667	15,842	1,196	75	1731	25,262	2,640	104
1668	17,278	1,987	115	1732	23,358	1,197	51
1669	19,432	951	49	1733	29,233	1,370	46
1670	20,198	1,465	73	1734	26,062	2,688	103
1671	15,729	696	44	1735	23,538	1,594	67
1672	18,230	1,116	61	1736	27,581	3,014	100
1673	17,504	853	49	1737	28,823	2,084	74
1674	21,201	2,507	118	1738	25,825	1,590	61
1675	17,244	997	58	1739	25,432	1,690	66
1676	18,732	359	19	1740	30,811	2,725	88
1677	19,067	1,678	88	1741	32,169	1,977	61
1678	20,678	1,798	87	1742	27,483	1,429	52
1679	21,730	1,967	91	1743	25,200	2,029	80
1680	21,053	689	33	1744	20,606	1,633	79
1681	23,971	2,982	125	1745	21,296	1,206	56
1682	20,691	1,408	68	1746	28,157	3,230	114
1683	20,587	2,096	102	1747	25,494	1,380	54
1684	23,202	156	7	1748	23,869	1,789	75
1685	23,222	2,496	107	1749	25,516	2,625	102
1686	22,609	1,062	47	1750	23,727	1,229	51
1701	20,471	1,095	53	1751	21,028	998	47
1702	19,481	311	16	1752	20,485	3,538	172
1703	20,720	898	43	1753	19,276	774	40
1704	22,684	1,501	66	1754	22,696	2,359	103
1705	22,097	1,095	50	1755	21,917	1,988	90
1706	19,847	721	36	1756	20,872	1,608	77
1707	21,600	1,078	50	1757	21,313	3,296	154
1708	21,291	1,687	79	1758	17,576	1,273	72
1709	21,800	1,024	47	1759	19,604	2,596	132
1710	24,620	3,138	127	1760	19,830	2,187	110
1711	19,833	915	46	1761	21,063	1,525	72
1712	21,198	1,943	22	1762	26,326	2,743	104
1713	21,057	1,614	77	1763	26,143	3,583	137
1714	26,569	2,810	106	1764	23,202	2,382	102
1715	22,232	1,057	48	1765	23,230	2,498	107
1716	24,436	2,427	99	1766	23,911	2,334	97
1717	23,446	2,211	94	1767	22,612	2,188	96
1718	26,523	1,884	71	1768	23,639	3,028	128
1719	28,347	3,229	114	1769	21,847	1,968	90
1720	25,454	1,440	57	1770	22,434	1,986	88
1721	26,142	2,375	91	1771	21,780	1,660	76
1722	25,750	2,167	84	1772	26,053	3,992	153
General Average	903,789	65,079	72	General Average	1,005,279	89,628	89

CASE *of distinct Small-pox by Inoculation, subsequent to the Patient's having passed through the Cow-pox.*

George Clark *, a marine, aged twenty years, was inoculated by Mr. Rickman, surgeon of the Portsmouth division of marines, with vaccine virus, between the end of October 1800, and the month of April following; and from that gentleman's report of his case, it appears, that he was infected with cow-pox in the genuine and satisfactory manner.

March 24th, the said George Clark was inoculated by Mr. Rickman with variolous matter in his left arm, by two punctures from the natural disease. On the 31st, at nine o'clock at night, he was attacked by symptoms which usually precede the eruption of small-pox, namely, coldness, shivering, succeeded by heat, thirst, nausea, and pains in his head and breast. April 1st, on his being received into this hospital (about four o'clock in the afternoon) his pulse was 98, and the symptoms that appeared on the preceding night gave him great uneasiness. Upon examining his arm where the variolous matter had been inserted, I observed that the punctures were elevated, and the inflammation which surrounded them so great, as, with the other symptoms, to preclude the smallest

* No. 42, 44. p. 120, 124.

doubt

doubt of his labouring under the influence of small-pox infection by inoculation.

April 2d, in the morning, an efflorescence was observed on his nose and right cheek, and several pustules were indistinctly perceived. On the morning of the 3d, these pustules, with many others on his face, arms, and breast, were very strongly marked; and during that stage of the eruption the symptoms which preceded it had considerably abated. On the 4th, the eruption was completed, consisting of ninety pustules on his face and head, and 132 on his body and extremities. On the 5th, his symptomatic fever entirely disappeared, and excepting a slight affection of his throat he had no complaint. Subsequent to the 5th, the eruption on his face advanced in a progressive state of maturation till the close of the 9th, and on his body and extremities until the 12th; during the periods when the pustules became perfectly maturated, they were remarkably prominent, and contained good pus. On his face the whole of the eruption was not completely crusted before the 13th, and on his body and extremities not until the 19th instant.

From the commencement of the eruption to its final termination, the professional gentlemen belonging to this establishment daily visited him, and at my particular desire several of the principal medical gentlemen from Portsmouth, Portsea, Gos-

port, Fareham, and Tichfield, frequently attended my visitations, and some of them had the goodness to take matter from the patient for further elucidating the case, and promised to acquaint me with the result of their experiments.

(Signed) R. Hope, M. D.

Royal Hospital, Haslar,
April 20th, 1802.

Royal Hospital at Haslar,
April 30th, 1802.

SIR,

I have the honour to acquaint you, for the information of the Committee of the House of Commons on Dr. Jenner's Petition, that several children, who were inoculated with matter taken from George Clark, as stated in my report of his case to the Admiralty and Sick and Wounded Boards, on the 20th instant, received the infection, in spite of the "evidence which the Committee received from medical persons in Portsea, which stated considerable doubts as to its being that disease," and are now passing through the different stages of the small-pox in a strongly and satisfactorily marked manner. As I feel it a sacred duty which I owe not only to my King and country, but to myself also, to state facts when called upon, on a subject of such national import-

ance,

ance, I shall offer no apology for this intrusion on your time, and am,

SIR,

Your most obedient humble servant,

R. HOPE, M. D.

And Second Physician to the Hospital.

To Admiral Berkeley, M. P. Chairman of the Committee for Dr. Jenner's Petition, London.

Sarah Dyer *, wife of William Dyer, now residing in the parish of Old Sodbury in the county of Gloucester, saith, That when she was about sixteen years of age, she then lived a servant to James Hatherell of Combsend Farm, in the said parish of Old Sodbury; that the cow-pox appeared among the cows; that she was infected with the distemper, and had several pustules broke out upon different parts of her body, and one particularly large upon her arm; was very sore under the arm-pits, and could hardly raise her hands to her head; that her mistress told her she would have no occasion to fear the small-pox in future; that about eleven years after she was inoculated with the small-pox, had the distemper so severely, and the burden so great, that she was blind for six days.

Old Sodbury, 12th February 1802.

* See No. 23, p. 73. Of this case there is no direct evidence before the Committee.

High Wycombe, 29th March 1802.

SIR,

I was yesterday detained at a distance from home, or should have had the honour of replying to your letter.

In the month of June 1800, I inoculated a family of four children with the cow-pox. The infection was sent me from town by a person who assured me he received it from Mr. Jenner, brother to the Doctor.

I watched the progress accurately, and was well satisfied that all the symptoms exactly agreed with those described by the advocates of this disease. In the spring of last year, at a general inoculation for the small-pox, I made the experiment on the same children, when two most certainly did receive it, and two did not; and the most striking proof of this fact is, that others were inoculated from them, and had the disease rather in a heavy degree. In another family also, the same failure occurred, and in two instances beside, where the persons declared they had gone through the cow-pox many years before the small-pox evidently was taken.

I beg leave to subscribe myself,

SIR,

Your most obedient and very humble servant,

R. B. SLATER.

SIR,

SIR,

In answer to your letter received this morning, I beg leave to inform you, that in the latter end of March last year, two children were inoculated for the cow-pox by a young gentleman, a pupil of mine, and that I saw the children in the progress of the disorder, and they appeared to have received the infection properly, and were judged by us to be secure from the variolous infection. A few months afterwards they were seized with the natural small-pox, of which one of them died. They were the children of a servant of Sir Digby Mackworth of this place.

I am, SIR,

Your most obedient servant,

JOHN GROSVENOR.

Oxford, March 27th, 1802.

SIR,

I had the honour to receive your letter yesterday, but the post does not go out on a Saturday evening. I have been in the profession of surgery more than thirty years, and during that time have had frequent opportunities of communicating the small-pox to patients, after an interval of several years, who had been infected by the vaccine matter in its genuine state.

I have now the honour to lay before you a case which

which lately occurred at Bath *. John Parker, about four years of age, was inoculated with the vaccine matter, procured from Dr. Jenner by a friend, and at that time he was presented with engraved plates, which represent the progress of the pustules as the eruptive fever advances: they were found to correspond minutely, and the child became feverish at the usual period, with every symptom which attends the cow-pox. Eight months afterwards another child was inoculated for the small-pox in the same house, as no suspicions were entertained of John Parker's taking that disease, and got through it favourably: but John Parker soon became feverish, and after several days illness an eruption made its appearance, which proved to be the small-pox. Several children were inoculated with ripe pus taken from Parker, and they all received the small-pox. I do not advance this circumstance on report only, for I several times visited this child during the progress of the disease.

Should you, Sir, think my evidence necessary before your Honourable Committee, I must beg leave to inform you, that I am under a subpœna to attend the assizes held at Taunton on the 2d of April.

I have the honour to be,

SIR,

Your obedient servant,

JAMES NOOTH.

Bath, March 28, 1802.

* No. 26, p. 80.

EXTRACTS

EXTRACTS *from Manuscripts of Mr.* NASH, *delivered to the Committee by Mr.* KEATE, *as far as they relate to the Cow-pox.*

It is rather remarkable that no writer should have taken notice of the cow-pox.

I never heard of one having the small-pox, who ever had the cow-pox. The cow-pox certainly prevents a person from having the small-pox.

I have now inoculated above sixty persons who have been reported to have had the cow-pox, and I believe at least forty of them I could not infect with the variolous virus; the other twenty, or nearly that number, I think it very reasonable to presume (as they were no judges) had not the real cow-pox. It is not my own opinion only, but that of several other medical gentlemen, that convinces me the cow-pox is a prophylactic for the small-pox.

I have not been able to discover that the human species get it from the cows in any other manner than by contact with the parts immediately infected, such as in milking; neither do I apprehend that one of the human species can communicate it to another, but by the same means as I have known some of the inhabitants of a house where it was, escape it, but none of those who lay in the same bed with a diseased person.

In Mrs. Scammell and Mrs. Bracher, inoculation produced no eruption, no sickness, and little

or

or no suppuration of the arm, the place punctured not being bigger, when inflamed and suppurated, than a large pin's head. It frequently leaves considerable marks, which are much larger than those of the small-pox, as large (I have measured some) as a silver threepence.

EXTRACT *of a Letter from the Rev.* HERMAN DREW *to Dr.* PEARSON; *dated Wootton, September 7,* 1798.

Having an opportunity, I communicated your queries relative to the cow-pox to Mr. Dolling, an inoculator at Blandford, who is in very extensive practice, and I am favoured with the following answers:

I can only say, I have inoculated for the small-pox many hundreds, that said they had had the cow-pox; very few of them took the infection, so as to produce the small-pox; and those, I am inclined to think, deceived themselves in regard to their having had the cow-pox. I inoculated seven children for one person, the eldest not ten years old; five of those children the mother had made play with cows teats that had the cow-pox, and they received infection from the cow; these five children had not small-pox, the other two had.

Mr. Justins, a farmer at Yetminster, in Dorset, inoculated

inoculated his wife and children with matter taken from the teats of a cow that had the cow-pox: in about a week from the time of inoculation, their arms were very much inflamed; the patients very ill; the man so much alarmed as to call in medical assistance (Mr. Meach of Cerne); the patients soon got well; they have since been inoculated for the small-pox by Mr. Trobridge of Cerne, but did not have it.

EXTRACT *of a Letter from Dr.* R. PULTENEY *to Dr.* PEARSON; *dated Blandford, July* 14, 1798.

I have never heard of any being affected with the disease, except such as have milked the cows or handled the udders.

The same person informed me, that of seven children he had inoculated for the small-pox, five had been previously infected with the cow-pox, and purposely, by being made to handle the teats and udders of infected cows, in consequence of which they suffered the distemper. These five, after inoculation for the small-pox, did not sicken; the other two had the distemper.

A farmer in this country inoculated his wife and children with matter taken from the teat of a cow. At the end of a week the arms inflamed, and the patients were so far affected as to alarm the farmer, although unnecessarily, and induce him

him to call in medical assistance. They all soon got well, and were afterwards inoculated for the small-pox, but no eruptions followed.

I was not applied to in this case; but the fact is sufficiently ascertained to me.

It is well known in Hampshire, Dorset, Somerset, and Devon. I also know that it is not uncommon in Leicestershire, and other midland counties; but dairy-men keep it a secret if possible, as it is disreputable to the cleanliness of the produce.

EXTRACT *of a Letter from Mr.* W. DOLLING *to Dr.* PEARSON; *dated Chettle, April* 9, 1802.

The farmer alluded to in Dr. Pulteney's letter to you, who inoculated his wife and children with matter taken from the teat of a cow, and the person mentioned in Mr. Drew's letter, viz. Mr. Justins, is the same person: both Dr. Pulteney's and Mr. Drew's intelligence came from me. I am not at this time certain as to the year, but believe it was on or before the year 1786: the farmer is still living, of whom I can have the particulars.

EXTRACT

EXTRACT *of a Letter from the Rev.* HERMAN DREW *to Dr.* PEARSON; *dated Abbots, near Honiton, Devon, April* 11, 1802.

I cannot inform you at what period Mr. Justins of *Yetminster* (not Axminster) inoculated his family; but I have no doubt but it was previous to Dr. Jenner's practice. I have by this post communicated to Sir William Elford, Bart. a curious fact, which came to my knowledge yesterday; that, above twenty years ago, a woman inoculated her children with matter taken from the cow, on the point of a large needle.

EXTRACT *of a Letter from Mr.* NICHOLAS BRAGGE *to Sir* WILLIAM ELFORD, *Bart. (a Member of the Committee); dated Axminster, April* 12*th*, 1802.

It is now more than thirty years ago that I first made experiments, and proved that the vaccine disease was a preservative against the small-pox; and it is, I believe, more than twenty years ago, that, through the Rev. Herman Drew, I acquainted Sir George Baker with the observations and experiments I had then made, which I am certain Sir George will readily acknowledge. Unhappily an accident by fire has deprived me of having recourse to them now, but my memory will

will supply me with enough to convince you, that Dr. Jenner is not the only person entitled to the reward that may be thought deserving for such discovery. It is now, I believe, twenty years ago, that Mrs. Rendall, the wife of a respectable farmer in the parish of Whitechurch, near Lyme in Dorsetshire (who is at this time a tenant to Lady Caroline Damer, in the same parish for which I have been concerned as an apothecary for the poor ever since I have been in business), inoculated herself, and three or four children for it; and those children, who have long arrived at manhood, have since inoculated their friends and neighbours whenever an opportunity has offered.

EXTRACT *of a Letter from the Rev.* HERMAN DREW *to Sir* WILLIAM ELFORD, *Bart. dated Abbots, near Honiton, April* 1*st*, 1802.

Dr. Edward Jenner has undoubtedly very great merit in bringing the vaccine inoculation into practice, but he is no more the discoverer of the cow-pox and its effects than I am. Nearly twenty years ago, I wrote sheets of paper to Sir George Baker on this disorder, and I know not what occasioned his laying aside his intention of publishing his investigations; he had had a previous correspondence with Dr. Pulteney of Blandford, on the subject. Sir George desired me to inoculate with matter taken from the cow, but my endeavours

to find out where I might get matter, were, for a long time, unsuccessful, owing to the secrecy of the farmers, whose dairies were infected with such a filthy ulcerous distemper, it would have marred the sale of their butter, &c.

About fourteen years ago I discovered an infected cow, and, by desire of Sir George Baker, I applied to a Mr. Bragge, a surgeon of Axminster, to attempt inoculation; but unfortunately we were too late, as the disorder was so far abated in the animal, that the matter had lost its activity. We made use, however, of a dissolution of the scabs in warm water, but without success.

When Dr. Jenner published his observations, he was followed by Dr. Pearson, of Leicester Square, who was introduced by Sir George to a correspondence with me on the subject, and he repeatedly confesses in print his obligations to me for information. No one can have an higher opinion of the good effects of the vaccine inoculation than I have; it has occupied my thoughts for years; and nothing but Horace's advice, "Ne sutor ultra crepidam," has checked me from the use of the infected lancet or saturated cotton. *Entre nous,* I have had a little successful practice.

A letter also from William Tucker, Esq. of Coryton, in Devonshire, to Sir William Elford, Bart. dated Coryton, April 12th, 1802, states, That Mr. Bragge twenty years ago proved the

efficacy, and with great assiduity recommended the practice of vaccine inoculation; that Mr. Bragge, through the Rev. Herman Drew, furnished Sir George Baker with a variety of papers in proof of its being a sure guard against variolous infection; and that Dr. Jenner's superior merit consisted in having effected the introduction of vaccine inoculation, and in having also, as it is said, ascertained the means of discriminating the real from the spurious disease.

College of Physicians, April 13, 1802.

SIR,

I have laid before the College the letter which I have had the honour to receive from you a few days ago, and am directed by them to answer, that the extreme mildness of the symptoms generally attendant on vaccine inoculation is such, that as well from their individual experience, as from the evidence of others, in favour of the practice, they believe it perfectly safe, when properly conducted, and highly deserving the encouragement of the public, on account of the ultimate great advantage expected from it, which can only be fully established by the extended and successful experience of many years. I have the honour to be,

SIR,

Your most obedient servant,

T. GISBORNE.

EXTRACT

EXTRACT *of a Letter from Mr.* J. CLINCH *to Dr.* E. JENNER; *dated Poole, 25th January* 1802.

I will hasten to tell you the general result of my practice in the vaccine disorder, in the island of Newfoundland. I informed you, in a former letter, that the matter sent me by your nephew produced the effect completely, although from the date it was kept full four months.

I began by inoculating my own children, and went on with this salutary work, till I had inoculated upwards of 700 persons, of all ages and descriptions; many opportunities soon offered at St. John's (where the small-pox was making great ravages), which afforded convincing proofs of the safety of the practice to the inhabitants and servants in Trinity Bay; they saw (at first with astonishment) that those who had gone through the Jennerian inoculation, were inoculated with the small-pox, and exposed to the infection, without the least inconvenience, and I hope it will every day become more and more extensive, as nothing can be more certain, than that it will annihilate the worst and most dreadful of all disorders, the small-pox.

EXTRACT *of a Letter from the Rev.* W. FINCH *to Dr.* E. JENNER; *dated St. Helen's, Lancashire, 15th February* 1802.

In addition to the proof of its efficacy, which I have already published in the Medical and Physical Journal for May 1800, I may affirm, the contagion of the small-pox seems by its means warded this town and neighbourhood; for before I began the new practice, that malignant disease raged here with such virulence, that at the close and beginning of the years I have resided here, I have daily interred two or three children of a family who have fallen sacrifices to it; but since, to the inexpressible joy and happiness of my parishioners, they have not had the sorrowful occasion of burying one that has died of the complaint, because it is not heard of among us. Besides, the virtue of the cow-pox appears to me to be equal, if not superior, in force to that of small-pox.; for here has lately occurred an instance of a child's being afflicted with the latter, after it has been inoculated and infected with variolous matter.

EXTRACT

EXTRACT *of a Letter from Mr.* T. M. KELSON *to Dr.* E. JENNER; *dated Seven Oaks, Feb. 2d,* 1802.

In the month of April 1799, soon after I first procured the vaccine virus, I introduced the disease among the workhouse children of this place, they were forty-six in number; and in order to ascertain one very material fact pointed out in your publication, that of the cow-pox not being contagious, I inserted the fluid in the arms of only half of them, permitting those to pass through every stage of the disorder previous to my giving it to others; at the same time I took particular care that they who were not inoculated, should be as much exposed to the mischief as possible; some of the pustules were broken, and the effluvia applied to their noses, and they were almost completely intermixed by night as well as day, during the whole process, but nothing ensued. When I had given the distemper to the remainder, I inoculated the whole party with a most virulent sort of small-pox, but they, one and all, resisted the disease. A short time afterwards a wretched family of children, just recovering from bad small-pox, was brought from London late in an evening. I ordered them to be put into different beds with my late patients, and their clothes,

which they had worn during their illness, I desired might be laid on their beds, but this also made no impression. Fifteen months after I operated again upon the greater part of these workhouse children, both for cow-pox and small-pox, but nothing happened; this shews the vaccine is a security against itself, as well as the small-pox. In the course of the year ninety-nine, I inoculated a child with cow-pox, and at the end of four days I put him in the same bed with his sister, who had a most dreadful kind of confluent small-pox; they remained together a fortnight; the cow-pox patient had the disease in the mildest manner possible, and resisted the small-pox altogether. Independent of these striking instances of the infallibility of the practice, which were amply sufficient to give me implicit confidence in it, I inoculated in the course of the same and the following year, many hundreds; and, for the satisfaction of my patients, I put the thing to the same sort of test, by inserting variolous matter afterwards, and not one solitary instance hath occurred of its insecurity; and of no truth am I more convinced, than I am that the genuine cow-pox renders the human constitution unsusceptible of the small-pox ever afterwards.

EXTRACT *of a Letter from Dr.* MARTIN WALL *to the Chairman; dated Oxford, April* 14, 1802.

Dr. Rowley certainly did not recollect correctly the conversation I had with him, when he was here in the summer of 1801. The account of different cases, which he has confounded in one statement, I think it will not be difficult to separate and distinguish.

Early in the spring 1801, or some little time before (I will not pretend to be very correct in my dates), Dr. Williams and Mr. George Jenner inoculated with vaccine matter three children of —— Green, in George Lane; they were all supposed to have gone through the vaccine disorder favourably. In the summer of the same year one of these three children caught the small-pox, which prevailed epidemically in the neighbourhood, and had the disorder very mild. While the eruption was out upon the child, or just dying away, Dr. Jenner happened to call upon me, and I took him to see the child; as soon as he came into the room, he immediately recollected that he had been there before; and, upon seeing the child, he said to the mother, "Don't you remember my being in this room soon after these children had been supposed to have had the cow-pox; and that, upon looking on this child's arm, I told you it had not had the cow-pox, and would

not be secure from the small-pox, unless it were subjected to another inoculation with vaccine matter; at the same time I told you, upon inspecting the arms of the other children, that they were safe?" This was the purport of his words; whether I have given his exact expressions, I am not certain.

Nearly at the time when the children above were inoculated by Dr. Williams and Mr. G. Jenner, Mr. Grosvenor * and Mr. Swift inoculated with vaccine matter two children of —— Slatter, butler to Sir Digby Mackworth. They were supposed to have gone through the vaccine disorder regularly and well; but both these children in the July following caught the natural small-pox, and one of them died. Of these cases I know nothing more, as I did not attend the children.

EXTRACT *of a Letter from Dr.* MARTIN WALL *to the Chairman; dated Oxford, April* 2, 1802.

I do not presume to think that it is in my power to add any thing to the force of the evidence (which must have been laid before you and the Committee of the House of Commons), tending to evince, that the inoculated cow-pox is an indisputable security against the small-pox in any

* No. 48. p. 153.

form;

form ; yet I feel it my duty to express my opinion, and to add one more to the many testimonies which have been presented to your Committee on this subject. I have not been myself a practitioner in the vaccine inoculation (my engagements preventing me), but the extensive excursions I often make into the country, have given me opportunities of conversing with numerous practitioners, and hearing their relations of the progress and result of their experiments ; and I never have yet met with any instance which has shaken my opinion, that the cow-pox is a safe and efficacious preservative against the small-pox. I will not allege, that I have not heard of unfavourable cases, unfavourable I mean to the position I have just laid down ; many such occurred at first, when the inoculation was conducted by ignorant and ill-judging persons ; and it is wonderful that more instances of failure did not take place. But when the process came to be conducted with more careful observation, such ill consequences and deceptions were very rare, and where they did take place, the source of the deception was often easily traced ; and it was as easily proved, that the persons in question on whom the small-pox appeared (after the vaccine inoculation), had really never been infected with the cow-pox. Some cases have apparently been attended with greater difficulties, as they have been said to have been under the care of practitioners of eminent ability and judgment ;

yet

yet even in these, if their progress could be properly investigated, some fallacy would be probably detected, as it has been in so many others. For as it has been demonstrated by thousands and tens of thousands of instances, where the process of vaccine inoculation has been carefully conducted and observed, the patient has ever after been incapable of receiving the variolous infection, it is most reasonable to suppose, that, if one or two instances of a contrary event have occurred, some mistake must have taken place in those cases, however eminent the abilities of the inoculator may have been. Let us reason upon this point in another mode. No one doubts the power of the inoculated small-pox to preserve a person from that disorder in future, whether by casual or artificial means. What then would any one say, if a man, having had the small-pox by inoculation, should take the disorder (apparently) a second time, either by contagion or any other way? Would he say that that man had the small-pox twice? Would he draw any inference unfavourable to the generally received opinion of the efficacy and security of inoculation? No, certainly; if he had one spark of candour he would say, that the first inoculation had not communicated the real small-pox, and had not influenced the constitution in that manner which is necessary to secure it against future infection. Let candour then apply this argument to the cow-pox, and it will be with

equal justness inferred, that if any person has been susceptible of the influence of variolous infection, after having been inoculated with vaccine matter, there has been some mistake in the case, and that person has really never had the cow-pox at all.

I request the Committee therefore only to admit the same analogical argument here as in the case of small-pox, or even only to allow *exceptionem non tollere regulam*; and then I trust the discovery of Dr. Jenner can never be too highly estimated.

Testimonials in favour of vaccine inoculation, from the Physical Society of Guy's Hospital in London, from Manchester, Shrewsbury, Birmingham, and many other places, signed by medical names of celebrity, were delivered to your Committee. Your Committee have also deemed it proper to subjoin the following extract from the Address of the Members of the Jury of Health, and the Medical Committee of the Department of the Somme, to his Excellency the Minister Plenipotentiary of England for the Congress at Amiens.

MY LORD,

The Jury are constantly occupied with whatever relates to the preservation of man. Vaccination has justly called forth their particular attention; and in the course of a year a great variety of experiments

periments have therefore been made here upon more than 600 persons. The first magistrate of this department has given every encouragement to our trials; and the discovery which has been made in your country has been stamped in ours with the seal of infallibility. The vaccine is now proved to be a preservative against the small-pox.

Signed,

L'Endormy, M. D. *Paris*, Sevelle,
L'Apostolle, Cornet.
Laden,

An Account *of* 102 *Individuals put to the Test of Small-pox after the Vaccine Inoculation; from the Magazin Encyclopedique.*

In the fourteenth number of the Encyclopedia Magazine, is a report of the Central Committee of Vaccine Inoculation at Paris, containing a counter-proof practised on 102 children, who had previously been inoculated with the cow-pox.

In this report the Committee observe, That long and constant experience having perfectly convinced them how little danger was to be apprehended from vaccine inoculation, nothing remained but for them to assure themselves more particularly of its preservative effect; and to ascertain whether, contrary to the doubts which had been excited

cited in this respect, its duration extended beyond the period of one year.

In order to make this experiment with all the care and all the authenticity which it merited, the committee assembled as great a number as possible of the most eminent medical men as witnesses of the fact.—They here publish the result of the counter-proof tried in their presence, on 102 subjects, who had been previously inoculated with the cow-pox.

The medical practitioners, whose names are undersigned, being assembled in the School of Medicine, with Citizen Thouret, the director, a patient, labouring under the small-pox well characterized, was introduced; and the matter was taken and inserted into the arm of every individual who had undergone vaccine inoculation, by three punctures at least.

In eighty-four cases variolous inoculation altogether failed. In eighteen cases it produced a local effect, namely, a slight degree of inflammation, elevation, and suppuration, at the places where the punctures had been made; but there was not the least sign of fever, general eruption, or constitutional disease. This is precisely what occurs, when persons who have had the small-pox are inoculated with variolous matter. Hence the medical practitioners, who had assembled on this occasion, observe, it is natural to conclude, that vaccine inoculation has preserved from the small-

pox

pox the 102 individuals who were inoculated with variolous matter in their presence.

This is signed, Paris, 30th Brumaire, the 10th year of the Republic;

Portal; Hallé; Sabatier; Jussieu; Fourcroy, Counsellor of State; Parmentier, Huzard, Teissier, Members of the National Institute:

Maloet; Descemet; Jeanroy; Jeanroy junior; Bosquillon; Laverne; Lafisse; Duchanoy, Administrator of Hospitals; Andry, Montaigu, Borie, Delaporte, Roussille-Chamseru, Roussel-Vauzème, Physicians of the heretofore Faculty of Medicine of Paris:

Corvisart, Physician to the Government; Suë, Dubois, Chaussier, Petit-Radel, Leclerc, Professors of the School of Medicine:

Coste, Heurtelour, Biron, Vergez, Lacroix, of the Council of Health of the Armies:

Bickat, Dupuytren, Anvity, Alibert, of the Society of the School of Medicine:

Tourdes, Professor of the School of Medicine at Strazburgh:

Sédillot junior, Beauchesne, of the Society of Medicine at the Louvre:

Daignan, Bertin, Leblanc, Leveille, Lerminier, Bourdette, Ruffin, Recamier, Foubert, Moreau.

The Committee request, That if there are any farther objections to be offered against vaccine inoculation,

oculation, they may be founded on facts equally authenticated.

Signed by all the Members of the Committee; Thouret, President; Guillotin; Leroux; Pinel; Doussin-Dubreuil; Salmade; Delaroche; Jadelot; Marin; Parfait; Mongenot; Lasteyrie; Husson, Secretary.

General Memorandum.

Foudroyant, Malta, Dec. 9, 1800.

The small-pox having made its appearance on board the Alexander, and other ships in the fleet, the Commander in Chief thinks it necessary to refer the respective Captains to the General Memorandums of the 19th of October last, and to recommend immediate application to Dr. Marshall and Dr. Walker, whose safe and excellent mode of treatment has been experienced on board the Foudroyant, and other ships, in preventing the dreadful effects so often attending the small-pox, which may now so easily be avoided without danger or inconvenience.

By command of the Vice-admiral,

Signed, WILLIAM YOUNG.

To the respective Captains, &c.

CERTIFICATES *from Lord* KEITH *and General* HUTCHINSON *granted to Doctors* MARSHALL *and* WALKER.

These are to certify, that Doctors Marshall and Walker have administered the vaccine inoculation to such of the crews of all His Majesty's ships, under my command, at Gibraltar, Minorca, Malta, the port of Marmorice, and on the coast of Egypt, as had the opportunity, and were desirous of submitting to the operation: that these gentlemen have manifested the greatest assiduity for the extension of the practice, bestowed the most unwearied attention to its successful application, and have, according to the information I have received from all quarters, exhibited it with perfect success.

KEITH.

Given under my hand, on board His Majesty's ship the Foudroyant, in the Bay of Aboukir, 29th March 1801.

Camp, Four Miles from Alexandria, 11th of April 1801.

This is to certify, That Doctors Marshall and Walker attended at the hospital at Malta, for the purpose of inoculating the respective regiments of the expedition to Egypt, according to the General Orders of the late Commander in Chief, Sir Ralph Abercrombie, at which time the small-pox had got into the fleet, and was very fatal.

Doctor

Doctor Walker accompanied the expedition, with the approbation of the Commander in Chief, to Egypt, and introduced the new practice into the army in general, which was found effectual in arresting the ravages of the small-pox, those soldiers escaping it who submitted to his operation, and doing their duty as usual, while a few, who neglected the opportunity, were laid up.

We now experience his services in another way, he having consented to be associated with the surgeon of the brigade of seamen on shore; and from Sir Sidney Smith finding it necessary to have the attendance of the surgeon at a distance from the camp, the medical care of the whole brigade falls upon him.

Major-general Hutchinson feels a sincere pleasure in recommending Doctors Marshall and Walker (for their indefatigable zeal in the service) to his Royal Highness the Duke of York, who ever takes so lively an interest in whatever renders the situation of the soldier comfortable.

J. Hely Hutchinson,
Major-general.

Dr. Jenner submitted vouchers from correspondents in various parts of the world, referring to at least 100,000 cases; of which a selection has been made in the preceding numbers.

DEBATE

IN THE

House of Commons

ON THE

REPORT OF THE COMMITTEE

ON

DR. JENNER'S PETITION,

JUNE 2, 1802.

DEBATE,

&c.

Admiral BERKELEY.

" BEFORE I enter into that part of Dr. Jenner's case, which is the particular object of my motion, I hope to be permitted to explain a little the conduct of the Committee, whose Report is now before you. I believe some of the most eminent characters in the medical line have given their testimony in favour of the utility and efficacy of this discovery; and if we have not examined all, it was for fear of burdening our Minutes, and because we were rather guided in our choice of evidence by a selection of many of those, whose opinions had been originally hostile to this system of inoculation, and whose researches therefore were more keen to detect its fallacy, or establish its truth.—In the investigation of a matter so important to mankind in general, it was not thought right by the Committee to confine their examination to the Petitioner's evidence alone, as is usually the case, but to sift out any case which

could make against it. This conduct, which certainly may appear rather to bear hard upon the Petitioner, has proved a matter of fresh triumph to him: for although we descended to sift out information from every anonymous letter; though we raked the very kennels for information against this practice—all that we were enabled to get is pointed out at full length in the Report: and such were the explanations on those very cases—such were the testimonies against that evidence—that if Dr. Jenner's discovery could receive additional lustre from this sort of inquiry, it certainly has done so. Upon the beneficial effects of this discovery, I hardly wish to trouble the Committee, as I am certain, if the Report, which contains the scientific opinion of the first medical men in this country, does not satisfy the House, the united opinion of all the world, the homage of Europe, which has been paid to the discoverer of this blessing, will have its due weight on the minds of his countrymen, *who, though slow to believe, are ever willing, when convinced, to reward with liberality.* I cannot, however, but state some advantages which strike me in a great national point of view, which, in peace as well as in war, this discovery has brought forth. The labourer is not only enabled, during its progress, to perform his daily task without depriving his family of his earnings, or burdening his parish for support, but it is in proof also before us, that it has contributed to

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the exertions of our navy and army; as the mildness of its progress is such, that those valuable individuals, our soldiers and sailors, have been able to do their duty with the disease upon them, in the midst of one of the most glorious but fatiguing campaigns that ever was undertaken.—With respect to the immediate motion of this day, I certainly shall say something; as, although the Report states the actual loss Dr. Jenner has sustained, yet other particulars, which bear very hard upon him, are not inserted. *It is not* merely giving up his practice in the country, which has been proved to have been very lucrative; *it is not* the loss of that fortune, which the best authorities have stated he might have gained to a certainty, if he had kept it a secret; but it is the actual expenses which he daily incurs, by having promulgated this inestimable blessing, which I really think the hardest part of the case; for the very postage of the letters, both foreign and domestic, amounting frequently to ten, twenty, and twenty-five shillings a day, is really such a sum in itself, as no fortune would like to bear; an expense which cannot be repaid, and which his own generous and benevolent intentions were the cause of.

" As to the remuneration which ought to be given in this case, I hardly know how to appreciate it. I have precedents in my hand, which state various rewards that have been given to inge-

nious men, which I shall now read. [Paper read.] This last vote is only half of the sum constantly voted for the discovery of the longitude, which in every point of view I certainly shall rejoice in, and gladly see the reward bestowed upon it, although we circumnavigate the globe very well without it. But great as that discovery is, I really cannot look upon it in any view to be compared with this of Dr. Jenner's, which is unquestionably the greatest discovery for the preservation of the human species ever made. *It is proved*, that in these united kingdoms alone, 45,000 persons die annually of the small-pox. Are the exertions of that man who puts a stop to this mortality not to be rated higher than the discovery of the longitude, by which not a single life is saved? The number saved here is 40,000; but throughout the world what is it? Not a second is struck by the hand of time, but a victim is sacrificed at the altar of that most horrible of all disorders, the small-pox. I will put it in another point of view—suppose it was proposed in this House, to reward any man who saved the life of a fellow-creature with *ten shillings*: I should be laughed at for the smallness of the sum; but small as it is, I should be contented with it; for if the statement of 40,000 deaths be true, and this discovery prevents it, Dr. Jenner would be entitled to £20,000 per annum. I shall therefore move, that a sum not less than £10,000 be granted; but when I do this, I declare

clare I do not think it sufficient. But although, as an admirer of Dr. Jenner, and perhaps a personal friend, I cannot forget that I am acting for the public—if the House should think it right to adopt any larger sum, I shall hold myself free to vote for it."

Sir HENRY MILDMAY said, he did not think the sum proposed was by any means adequate. There was ample testimony from every quarter of the benefit arising from the discovery of Dr. Jenner, who, as soon as he made it, did not keep it locked up in his own breast, but liberally imparted it to the world. Dr. Jenner might, if he had kept it a secret, have made £100,000 by it, as well as any smaller sum; but he had explained the whole to the world in the clearest manner, and given every information upon the subject that was in his power. He concluded by moving to insert the sum of £20,000 instead of £10,000.

Mr. BANKES said, there was a paramount duty vested in that House, as the guardians of the public purse, which it behoved them to attend to. As far as he had looked into precedents relative to the present case, they resolved themselves into two divisions: the one case was, where the discovery was made a matter of public notoriety, and the other where it remained a secret, and became the subject of a bargain between the public and the inventor, for the purpose of buying the secret. Of the latter there were many instances,

and

and the House should remember how often it had been led away by the fashionable rumour of the day, or other circumstances, to bestow sums in this way, which they might now wish to be recalled. One of these instances was the grant of £5000 to Mr. Stevens, for a solvent for the stone, which had been found to be inefficacious. There were also several others; but he merely wished to put the House into a state of diffidence with respect to the subject now before them, though he believed there was as little danger of this discovery being discredited by subsequent practice as any that could be named. If, however, it was to be once contended, that every discovery of public utility ought to be remunerated by the House, the public purse would not be large enough to satisfy all the claimants. No persons were more fairly remunerated than those of the medical profession in proportion to their skill; and though this discovery was so far in the hands of the public, yet the carrying it into effect was coupled with medical skill, accuracy, and experience; and was there not reason to believe that those who wished to partake of the benefit of this discovery would go for it to the fountain-head? It was unfortunate that Dr. Jenner had imparted the secret to the public, though his conduct certainly displayed the greatest liberality. The inventors of the inoculation for the small-pox had made ample fortunes by it, though they had published it to

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the world, as all went to them to conduct the process. If the Hon. Gentlemen meant this as a question of justice, he did not know why they should ask for so restricted a sum; but he contended that Dr. Jenner had at present the means of remunerating himself. He acknowledged the utility and general benefit of this discovery, and the liberality of the conduct of Dr. Jenner; but he could not think himself justified in thus voting away the public money.

Mr. WINDHAM said, that much of what had been urged by his Hon. Friend made against the conclusions he had drawn. What his Hon. Friend had said about the guardians of the public purse, would not guide them on the present occasion, as it only went to this, that they should not grant a reward where it was not deserved. Here, however, they had to consider whether this discovery deserved reward, and if so, what was the sum that ought to be given. It had been stated, that a number of persons having made discoveries, rendered the secret of those discoveries the object of a bargain beforehand. He could only say that was not the case here; a part of the merit of the Petitioner was, that he had not followed that line of conduct: in this case, the discovery had been imparted to the world, and its benefits proved before a reward was solicited. If the inventor had kept the secret to himself, he was at a loss to say, what it would have been the duty of the House

to

to give to buy the secret. The general question in cases where a public reward was asked for an invention was, whether it was a useful and original invention. When his Hon. Friend said he was on the Committee, and talked of rewards impolitically granted, he thought his Hon. Friend was going to state, that there was no merit in the invention, or at least, that there were great doubts as to its efficacy—but on the contrary, his Hon. Friend had concurred in the general opinion of the utility of this discovery. Thus then the fact was admitted. The next consideration was, the extent of the utility, which was in this case beyond estimation; it went to the complete eradication of that dreadful disorder the small-pox, as it stopped the propagation of it, and, in fact, did more by stopping the propagation than by saving individuals.—The next question was, whether this was an invention that paid itself; for if so, the inventor could have no claim for a public reward. Here, however, this was not the fact; and it was here that the practice of this discovery would be confined to the faculty; but it was not likely, as supposed by his Hon. Friend, to be confined to Dr. Jenner, as it was capable of being applied by every medical man. This was not the case with the Suttons, the inventors of the small-pox inoculation, with whom the secret remained a long time before it became generally known. It might be said there was still another consideration that might

might be alleged, that the inventor having made the discovery could not conceal it; but here, though it might have been difficult to conceal it entirely, yet it might have been so far concealed that it could not have been applied by others, and therefore there was a merit in Dr. Jenner in not concealing it. With all these claims, he had no hesitation in saying, that the discovery was one which was entitled to reward, and that a reward ought to be given, not only for the sake of this, but to encourage others to turn their minds towards discovery, and to encourage others, when they had made any useful discovery, not to conceal it, but to impart it as speedily as possible to the public. With respect to the sum proposed, he thought it was the least that could be given for such a discovery, and he had not the smallest hesitation in supporting it.

Sir James Sinclair Erskine followed on the same side. He said, he wished particularly to advert to one point which had not yet been touched upon; he meant the actual expense which Dr. Jenner had been put to in completing this discovery. This expense, he could state from the best authority, amounted at least to £6000; consequently if the House voted only £10,000, the real remuneration to Dr. Jenner would be only £4000, a sum neither adequate to the importance of the discovery, nor worthy of the dignity of the House to bestow. If therefore the larger sum of

£20,000

£20,000 were objected to, he should move for £15,000, that Dr. Jenner might at least receive £9000 free. In addition to this he could state, that Dr. Jenner, in order to render his discovery more extensively useful, had left a practice of £600 a year; and that since his arrival in London his income had not paid his house-rent. Any profits that he might have derived from his discovery, had he kept the nature of it concealed, were taken away, by his making it so plain that any one, even ladies, had been enabled to put it in practice with success. He therefore should certainly hope, that if the larger sum appeared too much, at least £15,000 would be granted.

Mr. M. A. Taylor thought that as Dr. Jenner's expenses had not been stated as a ground of the resolutions of the Committee, they did not at present come regularly before the House. He therefore thought, that if these were to be inquired into, the Chairman ought to be instructed to report progress.

Mr. Hobhouse observed, that the expenses of Dr. Jenner might justly be adduced as an argument, as the loss he had sustained had been stated to the Committee, as appeared from the Appendix (of which he then read some extracts), and the Committee, in forming their Resolutions, had taken these also into consideration.

Mr. Fuller observed, that as the discoverer could expect no reward from the method of pa-

tents, which were not applicable in the present case, he thought him entitled to the larger sum.

The CHANCELLOR *of the* EXCHEQUER said, that whatever sum of money the Committee might vote to Dr. Jenner as a future reward for his merit, there was one thing clear, and that was, that Dr. Jenner had already received the greatest reward that any individual could receive, the approbation, unanimous approbation, of the House of Commons; an approbation most richly deserved, since it was the result of the greatest, or one of the most important discoveries to human society that was made since the creation of man; and he doubted whether the House of Commons would ever be again called on to decide on a point of greater importance or utility than that which was now before the Committee. Two Reports were now upon the table of the House, and they were founded on two Petitions from two individuals, who had each been most laudably and successfully employed in making discoveries for the preservation of human life. One saved human beings from the perils of shipwreck, the other from perils still greater. With regard to the merit of Dr. Jenner, it was needless to say much; there was no difference of opinion in the Committee on that subject. That he had made the important discovery for which the reward was asked, that the value of the discovery was without example, and beyond all calculation, were points not to be contested,

tested, for they were made out by convincing evidence; and that he had precluded himself from great emoluments by the generosity of his own conduct, was also most manifest. Wishing as he did to see such a person rewarded, yet knowing as he did that he had also a duty to discharge towards the public in voting away the public money, he must entreat the Committee to pause a little before it adopted the Amendment now proposed. One effect of the discussion would be, to confirm the general use of the practice of this species of inoculation; another effect would be to establish, for ever, the merit of Dr. Jenner; at the same time it could not be denied, that while both the practice and the fame of its author became as extensive as possible, the vote of £10,000 by Parliament as a remuneration to Dr. Jenner, would have the effect of enlarging the general practice of that learned physician in the way of his profession; so that both the subject itself, and the individual who discovered it, would be still better known to the world at large by this vote. He would ask whether any Member of the Committee doubted that Dr. Jenner's practice as a physician would not be extended by a vote of £10,000 to him by this Committee? Most undoubtedly that practice would be greatly extended by that vote, as well as by this discussion. If he were called to say what remuneration was to be given to Dr. Jenner, and that he was to be governed in the amount by the

value

value of the discovery, he really did not know the sum, because the value of the discovery was above all calculation; but that was not the principle on which the Committee professed to proceed, or on which it was practicable to proceed, the advantages being boundless; whereas the remuneration must of necessity have its limits; and then the question would be, what, under all circumstances, was a reasonable remuneration to the author of this discovery?—The difference between £10,000 and 20,000 was not the standard by which the Committee judged of the merit of Dr. Jenner; but the question upon the sum was one which had a reference to the duty which the Committee had to perform to the public. He admitted, indeed, with the Right Hon. Gentleman opposite to him (Mr. Windham), that the House of Commons were not guardians merely of the public purse, but they were guardians also of the interests of the public, and certainly, as such, would do well to encourage inventions for the preservation of the public health, which formed a very material part of the public interest, and by that consideration alone, he should be led to vote the larger sum proposed; but he confessed that, under all circumstances, he did not think himself justified in recommending it to the Committee as a fit thing to vote this large sum. When he recollected that the value of the invention was beyond all calculation, and when he considered the extent

of the merit of Dr. Jenner, he confessed it was painful to him to oppose any sum of money, however large it might be: but when he reflected that the Doctor must have other advantages besides this vote, that the practice of the Doctor would necessarily be very much extended, then he thought the lesser sum was that to which the Committee ought to assent. What had been said on the subject of the losses of Dr. Jenner, in the pursuit of this discovery, he conceived to be inaccurate, with reference to the Report of the Committee. He believed that losses had been confounded with expenses; it appeared that the Doctor had been at considerable expenses in this pursuit, but there was no evidence of his having sustained any losses. In a word, if he did not think that Dr. Jenner would gain other great advantages from this vote, beside the vote itself, he should think himself called upon to vote for the larger sum; but being entirely convinced that he would have many other advantages, and to a great extent, he found himself bound to declare his opinion in favour of the lesser sum. In saying this, he was rather pursuing the sense he had of his public duty, than his own feelings; were he to give way to his feelings, he might assent to any sum, but that was not the course to be followed by men in the discharge of their public duty. He had, however, the satisfaction to reflect, that this discussion had given to Dr. Jenner a reward that would last for ever,

and

and also that the comfort of his family would be amply provided for in his extended practice, by means of the sanction of that House.

Mr. GREY said, that from the tenour of the Right Hon. Gentleman's speech, from his owning that this discovery conferred so many benefits on mankind, he hoped he would have concluded by concurring with the Amendment. The importance of the discovery no one could doubt; some difficulty might indeed be made with regard to the extent of the remuneration. We should not in this be too much guided by a view to the expenses incurred, lest we should run the risk of rather giving an indemnification than a reward. He had heard no good reason given for limiting the sum to £10,000. He conceived there was no fear of its becoming a dangerous precedent, as such discoveries were not made every day. The Right Hon. Gentleman had said, that Dr. Jenner would find a reward in his own conscious benevolence. This, indeed, might afford much gratification to him; but it ill became the House to diminish their reward, because his merit was of such a nature as to yield gratification to benevolent feelings. As to the vote of the House increasing his practice, he saw no reason to expect such a consequence, when every thing attending the vaccine inoculation had been rendered so easy by Dr. Jenner's generous communications. All these circumstances

considered, he hoped the House would vote for £20,000, or at least £15,000.

Admiral BERKELEY said that he had fixed upon the sum of £10,000, not from any idea of its being adequate; and therefore as a larger sum had been moved for, he should consider himself as quite at liberty to vote for it.

Mr. WILBERFORCE stated that Dr. Jenner had been engaged in completing this discovery upwards of twenty years; that to the prosecution of it he had devoted that time and those talents which he might have turned to greater emolument by general practice. He was not to be considered as an adventurer who might hope by this discovery to push himself into practice. He had attained celebrity in his profession, and an extensive practice, which he had sacrificed to completing this discovery. There was not a likelihood of his regaining what in this way he had lost, as many others had from his communications acquired such a complete knowledge of the vaccine inoculation as to be employed with equal confidence. Nor was it likely that he would acquire a general practice, as many would be led to suppose that by his exclusive attention to vaccine inoculation he had become less skilful in other parts of medicine. In every view he thought the larger sum ought to be voted.

Mr. COURTENAY said, it appeared 40,000 men were

were annually preserved to the state by Dr. Jenner's discovery; now in former times every individual was reckoned worth forty shillings a year to the revenue: if therefore we suppose the value of human beings to keep pace with other articles, we must now suppose the value of each to be at least £5 a year. By this computation Dr. Jenner brought into the Exchequer £200,000 annually, and it was hard if out of that sum we did not allow him £20,000.

The question was then put, that the words "Ten thousand Pounds" do stand part of the resolution; when the Committee divided,

Ayes - 59—Noes - 56—Majority - 3.

OBSERVATIONS

ON THE

CONTRAVENING EVIDENCE.

OBSERVATIONS,

&c.

During the sitting of the Committee letters were received from professional and other gentlemen, some mentioning their being foiled in their endeavours to give security to the constitution from the small-pox by vaccine inoculation, others hinting that the inoculation of the cow-pox was known in dairies previous to Dr. Jenner's experiments. As it may be proper that they should not be altogether passed over in silence, we shall make a few short observations upon them.

The first instance mentioned in these letters is of a marine inoculated at Portsmouth by Mr. Rickman, surgeon of the Portsmouth division of marines, in the year 1800.

It need only be remarked that vaccine inoculation was then in its infancy, and that Mr. Rickman, like many others who took it up at that early period, was inexperienced in the practice, as appears by the evidence of Dr. Lind (see page 126). With this little experience it is scarcely possible Mr. Rickman

Rickman should be able accurately to distinguish between the perfect and imperfect pustule.

The next instance is that of an *old woman* named Sarah Dyer, who *said* she received the small-pox by inoculation, after catching the cow-pox from the cow. Cases of this kind require no farther comment than that given by Dr. Jenner in his evidence delivered to the Committee. (See p. 1 to 7.)

Then follows a letter from Mr. R. B. Slater, surgeon, of High Wycomb, who mentions his ill success in vaccination, but in a manner extremely vague. First he says, " The *infection* which produced this failure was sent me from town by a person *who assured* me he received it from Mr. Jenner, *brother to the Doctor*." This person's assurance was erroneous ; Dr. Jenner has *no brother*, nor any relative of the name who inoculates in London. Secondly, as a proof that two children out of four, vaccinated with this matter, really received the small-pox two years after, he says, " The most striking proof of this fact is, that others were inoculated from them, and had the disease *rather in a heavy degree*." This account is not sufficiently precise. We are not told whether the two children alluded to had secondary pustules, or whether the effect of the small-pox inoculation was confined to the arms. That a person who has undergone the small-pox may for ever be exposed to its contagion without any *constitutional*

stitutional effect, yet on his being inoculated afterwards it may produce a pustule containing *variolous* matter so correctly, as to be fit for the purposes of inoculation, is a fact that is, or at least *ought to be*, well known to the faculty in general. The vaccinated patient in this respect stands in the same situation as the variolated.

Mr. Grosvenor, surgeon, of Oxford, follows Mr. Slater. He alleges that two children inoculated for the cow-pox by a young gentleman, a pupil of his, received the small-pox a few months after. This was in the year 1801. These cases tell their own tale, and scarcely need a remark. If one vaccinates his *thousands*, and on exposure to the small-pox, finds them *all* secure, and another inoculates only *two*, and they are *both* found insecure, what is the inference? Why, that the young gentleman in question was incompetent to conduct the business, either from not being properly circumspect in the choice of his matter, or sufficiently experienced to discriminate between a perfect and imperfect pustule—one of the principal circumstances upon which the success of the practice depends. Perhaps the most satisfactory commentary that can be given on Mr. Grosvenor's letter is, his having *renewed the vaccine practice*—a convincing proof that he *now* confesses its efficacy. It has been said too that Mr. Slater has again taken it up, but of this we are not positively certain.

certain. (See Dr. Wall's letters respecting the Oxford cases, p. 167.)

Mr. Nooth, surgeon, of Bath, closes the short list of adverse correspondence, so far as regards the preventive powers of cow-pox. He mentions his having inoculated, with effect, the small-pox on those who had the cow-pox from the cow; and his having seen a child at Bath who had the small-pox after being vaccinated. Dr. Jenner's evidence is a sufficient comment on the first statement (see page 2); and it is presumed Mr. Cuff's (see page 80) will weaken the credit due to the second.

These were succeeded by some letters whose authors attempted to take from Dr. Jenner the merits of the *discovery*. But so futile did they appear, so like the dust on the balance when opposed to the vast weight of evidence laid before the Committee in support of the Doctor's claim, that they attached no consequence to it, nor did it excite the least notice among the Members of the House of Commons in their debate on the subject.

The first from Mr. Nicholas Bragge (see his letter to Sir William Elford, Bart. p. 159) tells us, that it is more than thirty years since he first made experiments, and *proved* the cow-pox to be a preservative against the small-pox. He insinuates that Dr. Jenner is not the *only* person entitled to a reward for the discovery. Who the

others

others are we are at a loss to conjecture. Mr. Bragge surely cannot mean to rank himself in that number; for if a person makes a discovery calculated to meliorate the sufferings of his fellow-creatures, and withholds its benefits from the world, certainly he cannot claim that reward which would be otherwise due to his merit. The fact is, Mr. Bragge, like many other practitioners in the west of England, had noticed the prophylactic powers of the disease when communicated from the cow to the milkers; but the thought of rendering it subservient to the great purpose for which it is now applied, originated entirely with Dr. Jenner.

The Rev. Herman Drew says to the Committee (see page 160), "Dr. Jenner is no more the discoverer of the cow-pox and its effects that I am." Mr. Drew would unquestionably not have made this observation, if he had previously noticed Dr. Jenner's publications on the subject, in which he had always declared it to have been known time immemorial! But what had been known? Nothing that produced *any advantage to mankind*; all was confusion. The nature of the disorder was involved in such obscurity, that no one had ever attempted to develope it, until the zeal and perseverance of Dr. Jenner so worked upon the rude materials, that he gave them the regularity and order in which even to this day they remain. The obstacles and perplexities he had to contend with

with are in some measure shewn in his evidence before the Committee.

So difficult did he find it to persuade even his most particular medical friends to turn their thoughts towards it, that, although he often brought up the subject for discussion in medical societies which met in the west of England, and used every effort to prevail on them to lend their assistance in the prosecution of the inquiry, yet it was always rejected chiefly on the ground of "*the impracticability of ascertaining the correct from the incorrect kind of cow-pox.*" To these societies also he communicated the idea of inoculating the disease. But even were Mr. Gardner's important evidence (see page 135) with respect to the original invention wholly omitted, it would not in the least affect Dr. Jenner's title to it; for it would argue a most extraordinary want of common intellectual discernment in the people who conduct the dairies, if, among so large a mass, some, who bore witness to the preservative power of the cow-pox, should not have been induced to make a rude kind of inoculation, by applying the virus intentionally, seeing that little more than *contact* was necessary to produce it. In fact, every case of cow-pox, whether termed natural, that is, from immediate contact with the teat of the cow, or whether produced according to the easy process suggested by Dr. Jenner, is a case of inoculation.

It was astonishing to see with what assiduity some

some of those gentlemen adverse to Dr. Jenner's claim of remuneration, employed themselves in seeking for evidence to weaken it. Finding nothing that could affect his claim among the *living*, the ashes of the *dead* were raked up! Among the papers of the late Mr. Naish, surgeon, were indeed found some vague accounts of the cow-pox, in its natural state upon the cow, ending in a prediction that it *might* be made a preservative against the small-pox. Not a single *case* however of vaccine inoculation did these papers contain *; yet it was insinuated that they *did*; and among others, *that of Mr. Naish's own son.*

The friends of Dr. Jenner have since thought it worth while to make inquiry into the truth of this statement. The PERUSAL of the FOLLOWING LETTER, for which we are indebted to Dr. Pew, of Shaftesbury, will serve to shew the matter in its true light.

* The reader is requested to refer for a clear and decisive refutation of Dr. Pearson's observations on this part of the subject, contained in his "Examination of the Report of Dr. Jenner's Claims," to a pamphlet published by Henry Hicks, Esq. one of the deputy lieutenants for the county of Gloucester; and to another pamphlet equally clear and decisive by Mr. Creaser, an eminent surgeon at Bath.

COPY

Copy *of a Letter from Dr.* Pew *to Mr.* Creaser *of Bath.*

Shaftesbury, 14th of Oct. 1803.

" DEAR SIR,

" Agreeably to your request I have taken an opportunity of examining the arm of Mr. Naish, son of my predecessor, the late Mr. Naish, surgeon, of this place, and also the arm of Mr. Abraham Matthew, who was inoculated by Mr. Naish on the same day, with the same lancet, and with some of the same matter with which he inoculated his own sons; and this was done at the particular request of Mrs. Matthew, who told Mr. Naish that if he inoculated her son with the same small-pox matter with which he inoculated his own children, she should have the best of all possible securities that it was taken from a proper person. This information I had some time ago from Mrs. Naish, and this very morning I accidentally met Mrs. Adams (late the above Mrs. Matthew), and took the opportunity of asking her respecting the inoculation of her son, who told me that she never had the most distant idea that the matter with which her son and Mr. Naish's children were inoculated was at all different from small-pox matter; that her son was extremely ill in *breeding* the small-pox (as she supposed it to be); that he had more than 300 pustules; that she recollected nothing different in these from the pustules of a child of

hers, since inoculated for the small-pox by me; and that a great number of persons, some of them her relations, were inoculated by Mr. Naish at the same time on account of the small-pox's raging universally at that time in the town, all of whom, as she apprehends, sickened for the small-pox in the usual manner, and had more or fewer variolous pustules!

With respect to the late Mrs. Scammel and Mrs. Bracker, both of whom have been my patients, and whom it has been inferred from Mr. Naish's papers were inoculated by him for the cow-pox, I have clearly ascertained to have been both inoculated for the small-pox, and the slightness of the effect evidently arose from their having taken the cow-pox when girls by milking their father's cows, which fact I have learned from Farmer Phillips, the brother of both; and from Farmer Scammel, the widower of the late Mrs. Scammel. If any farther investigation which it may be in my power to make should be deemed necessary, you may command the impartial exertions of,

"DEAR SIR,

"Your faithful, obedient Servant,

"R. PEW.

"T. Creaser, Esq. Surgeon,
Bath.

"N. B. It may not be improper to mention, that at the time Mrs. Scammel was inoculated by Mr. Naish for the small-pox, six or seven of her chil-

dren were also inoculated, all of whom had more or fewer pustules, although she herself escaped with the slight affection of the arm Mr. Naish recorded."

To follow Dr. Pearson through the whole of his evidence, would occupy too much time; but there is one part so materially incorrect, that it is necessary it should be particularly noticed. Dr. Pearson asserted before the Committee (see page 129), that after Dr. Jenner's book was published in May or June 1798, there was a *suspension of vaccine inoculation* till January 1799; for that neither Dr. Jenner nor any other person that he could find, was in possession of matter till *that period*, when HE obtained information that it had broken out in two of the cow stables near London. The reader has only to contrast this assertion with the following passage extracted *verbatim* from Dr. Jenner's second work on the cow-pox, published in the beginning of the year 1799.

" The cow-pox appeared at a farm in the village of Stonehouse in this county, about Michaelmas last (i. e. 1798), and continued gradually to pass from one cow to another till the end of November. On the 26th of that month some ichorous matter was taken from a cow and dried upon a quill. On the 2d of December some of it was inserted into a scratch (made so superficial

that

that no blood appeared) on the arm of SUSAN PHIPPS, a child seven years old."

Dr. Jenner then goes on describing the progress of the disease in this subject, and that Mr. D. *, a neighbouring surgeon, took matter from her arm; which *in point of fact* gave rise to a series of inoculations. Dr. Jenner afterwards mentions the case of Mary Hearn, who was inoculated also from matter taken from Susan Phipps. This erroneous statement Dr. Pearson has had various opportunities of correcting; but instead of doing so, he has gone on in a variety of publications, *echoing the very words he pronounced in the Committee Room*, and entirely *omitting* to notice the WHOLE OF THIS PART OF DR. JENNER'S COMMUNICATIONS. What must be the feelings of the candid and impartial on conduct like this?

Dr. Rowley asserts (see page 115), that he saw two children in the small-pox after having been inoculated with the cow-pox the preceding autumn 1800, by Dr. Williams and myself, as the father of the children informed him. On this I shall only observe, that *I never inoculated the children alluded to; and I have authority to state also that Dr. Williams had nothing to do with their inoculation.* Dr. Wall's letter to the Committee sufficiently shews Dr. Rowley's misrepresentation of this matter; nor should I have conceived it worthy

* Mr. Darke, surgeon, of Stroud, in Gloucestershire.

of farther notice, if I did not feel my character in some degree implicated by a statement so diametrically opposite to that contained in my own evidence, namely, that *I had inoculated three thousand persons without meeting with* ONE *unfavourable case.*

Dr. Moseley calls the cow-pox a novelty in medicine (see page 39), and thinks it requires more time than had elapsed to form a correct opinion on its merits. It was not so great a novelty as Dr. Moseley imagines. He seems not to have been acquainted with the length of time that passed during Dr. Jenner's investigation, and the extent of his experiments. He intimates an opinion of the imperfection of the cow-pox; and it is pretty clear from his answers to the questions put to him from the Chair, that he was entirely ignorant of the phenomena of the disease. To the present time we are doomed to hear opinions incorrectly formed in like manner without proper attention to the nature of the subject!!

Three years have now elapsed since the inquiry took place in the House of Commons. During this interval the practice of vaccine inoculation has spread so widely, that it may be said to embrace nearly the whole of the civilized part of the globe—a convincing proof of its efficacy; and a decisive argument against those little efforts that spring up AT HOME to impede its progress; efforts

that

that can only be made by the ignorant, the misinformed, the prejudiced, the interested, or the malevolent.

No one possessing an accurate knowledge of the laws and agencies of the vaccine and variolous matter on the human constitution, can possibly read the papers of the few individuals who still continue to oppose the progress of vaccination, without lamenting their publication, as they tend so much to delude the common people:—the philanthropist however will rejoice that these mischievous clamours must, ere long, be completely drowned in the loud and general voice of an approving world.

THE END.

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ERRATA.

Page 1, for *Report, &c.* read, *Evidence.*
— 3, line 6, for *other*, read, *others.*
— 23, — 1, for *Irwin*, read, *Jurin.*
— 31, at the bottom of the page, for *Appendix*, read, *Supplement.*
— 39, at the bottom, for *Appendix*, read, *Observations*, &c.
— 89, line 5, dele *semicolon.*
— 104, at the bottom of the page dele *Appendix.*
— 105, at the bottom, for *Appendix*, read, *Supplement.*
— 114, line 22, for *small-pox*, read, *cow-pox.*
— ib. — 23, for *cow-pox*, read, *small-pox.*
— 115, at the bottom of the page dele *Appendix.*
— 142, line 14, before *returned*, insert, *they were.*
— 155, — 24, dele comma after *another*, and insert it after *meant.*
— 188, — 6, for *impolitically*, read, *impolitick.*
In pages 140, 141, 143, 155, for *Nash*, read, *Naish.*